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Uncertainty and Coping: Older Women Living Alone with the Fear of Falling

by

Diane Lynn Desjardins ©

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Diane Desjardins

5112 - 125 Street
Edmonton, Alberta
T6H 3V5

11 December 1996

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Uncertainty and Coping: Older Women Living Alone with the Fear of Falling submitted by Diane Lynn Desjardins in partial fulfillment of the requirements for the degree Master of Nursing.

D Lynn Skillen
Dr. D. Lynn Skillen

Marjorie C Anderson
Dr. Marjorie C. Anderson

V. Strang
Dr. Vicki Strang

H C Northcott
Dr. Herbert C. Northcott

December 2, 1996

DEDICATION

I dedicate this thesis:

To my sister, my best friend, for her understanding and encouragement.

To my parents for their love and support.

To Marten for his kindness and wisdom.

To the participants for their insights.

ABSTRACT

An implicit assumption of this study was that the context of living alone contained hidden elements of fear of falling (FOF). Using a multiple-case study method, the phenomenon FOF was investigated among four older women who lived alone. Multiple data collections methods were integrated and presented as individual case studies. An analysis among cases revealed that the hidden element of FOF was uncertainty. The findings were then interpreted using Mishel's (1988) middle range nursing theory. As such, the research unfolded as a process, capturing the complex circumstances involved in the FOF phenomenon and the closely-linked coping strategies adopted by the participants. The role of social support in maintaining independence and reducing uncertainty in relation to FOF was highlighted. Interpreting the phenomenon FOF as a process provides exciting challenges for nursing practice and research.

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LIST OF ABBREVIATIONS

AARN	Alberta Association of Registered Nurses
ADL	Activities of Daily Living
AGF	Assessment Guide for Falls
DATS	Disabled Transit System
DDF	Demographic Data Form
FES	Falls Efficacy Scale
FOF	Fear of Falling
FFQ	Fear of Falling Questionnaire
PT1	Participant One
PT2	Participant Two
PT3	Participant Three
PT4	Participant Four
VON	Victorian Order of Nurses

CHAPTER ONE: INTRODUCTION

The fear of falling (FOF) is the most common complication to occur among elderly people who have accidentally fallen (Silverton & Tideiksaar, 1989). Research suggests that FOF may also develop in older people who have never experienced a fall (e.g., Downton & Andrews, 1990; Maki, Holliday, & Topper, 1991). Although FOF is frequently identified as a significant problem for elderly people within nursing and other healthcare literature, the phenomenon is not well delineated (Tinetti & Powell, 1993; Tinetti, Richman, & Powell, 1990) and until recently, the FOF phenomenon has received limited research attention (Kennedy & Coppard, 1987; Tinetti & Speechley, 1989; Walker & Howland, 1990), especially among nursing researchers.

The number of publications that acknowledge the importance of FOF, but rarely integrate the phenomenon into their research, has left a noticeable gap in the literature (e.g., Corbett & Pennypacker, 1992; Nelson & Amin, 1990; O'Loughlin, Robitaille, Boivin, & Suissa, 1993; Sehested & Severin-Nielsen, 1977; Tinetti, Williams, & Mayewski, 1986; Winter, Patla, & Frank, 1990). Moreover, recent studies which focus on FOF customarily use quantitative methods to measure certain variables related to FOF. For instance, Tinetti and Powell (1993) use the variables self-efficacy and dependency to measure FOF, whereas Dayhoff, Baird, Bennett, and Backer (1994) use the following variables to measure FOF: perceived harm outcomes, degree of threat, coping potential, and future expectancy that things are likely to change for better or worse. Although these variables measure FOF with varying degrees of accuracy, a comprehensive picture of the FOF phenomenon was not articulated in the healthcare literature.

Another problem was the lack of awareness and understanding of nurses and other healthcare providers about the nature of the experience of FOF for older women who live alone. Yet an overwhelming number of studies indicate that most falls occur among older women (Kennedy & Coppard, 1987; Prudham & Evans, 1981), even as much as twice as often (Campbell, Spears, & Borrie, 1990; Glynn et al., 1991; Lipitz, Jonsson, Kelly, & Koestner, 1991; Miller & Kaiser, 1993; Sorock, 1988). Another important consideration is that many researchers have linked increased falls with living alone (Craven & Bruno, 1986; Cwikel, Fried & Galinsky, 1989; Weagant & Daniell, 1986; Wickham, Cooper, Margetts, & Barker, 1989) and with social isolation (Ryan, Dinkel, & Petrucci, 1993). One common thread linking many of these studies was that falls could lead to loss of confidence, restrictions in mobility, depression, and death (Gibson, 1990).

The overall research question that guided this study was **"What is it like to be an older woman living alone with the fear of falling?"** The purpose of this study was to investigate the FOF phenomenon among older women who live alone in one Canadian city. The study evolved out of an in-depth critical review of the literature. It was based on unanswered questions about FOF as well as research evidence that supported the need for further analysis about this phenomenon. Using a multiple-case study design, this study identified tacit and hidden aspects of FOF. Thus, through examination of relationships among existing attitudes, behaviours, and beliefs surrounding FOF within the context of older women living alone, the research findings lead to a deeper understanding of this very complex phenomenon.

This study corresponded closely to a central focus of nursing research, which is to examine the perceptions and responses of individuals and families to illness. Specifically, this study addressed an important women's health issue as it pertained to the prevention of illness and the promotion of health among older women who live alone. Moreover, this study was grounded in the goals, values, and beliefs of the Alberta Association of Registered Nurses (AARN). The AARN (1989) acknowledged that the home is viewed by society as a desirable setting for care. In addition, the AARN believes that nurses have played an important and historical role in providing care to individuals and families in their homes. The goals for care in the home include: (1) to plan and direct care in the home, (2) to maintain or increase an individual's ability to function independently, and (3) to facilitate maximal physical, emotional, and social well-being. Further, the AARN recognizes that care in the home is more complex today, as a direct result of advances in technology, changes in demographics, and changes in social, economic, and political factors. However, the AARN (1988) firmly believes that the individual has the responsibility and right to be self-directing. This self-direction towards well-being is influenced by human biology, cultural conditioning, environment, and life experience.

Research which explores and describes the attitudes and beliefs of older women about their perceptions of FOF within the context of their own homes is highly significant to the nursing profession. However, studies from the literature which focus on FOF primarily originate from a variety of disciplines other than nursing, such as psychiatry (Marks, 1966; Marks, 1987; Marks & Bebbington, 1976), medicine (Arfken, Lach, Birge, & Miller, 1994; Downton & Andrews, 1990; Franzoni, Rozzini, Boffelli, Frisoni, & Trabucchi, 1994; Murphy & Isaacs, 1982; Ryynanen, 1994; Silverton & Tideiksaar, 1989; Tinetti & Powell, 1993; Tinetti et al., 1990; Vellas, Cayla, Bocquet, de Pemille, & Albarede, 1987), occupational therapy (Walker & Howland, 1990), physical therapy (Bhala, O'Donnell, & Thoppil, 1982; Maki et al., 1991), and social work (Cwikel et al., 1989). Although there is little evidence in the literature and the community to show that the FOF phenomenon has received research or clinical attention from nurse researchers, they have recently begun to conduct research in this important area (i.e., Ayn-Wright, Aizenstein, Vogler, Rowe, & Miller, 1990; Dayhoff et al., 1994). Therefore, an urgent need existed for continued study and development of the phenomenon FOF using an inductive method. The domain of nursing brought an innovative approach to the problem.

Literature from a variety of health sciences disciplines on living alone, accidental falls, and FOF are reviewed in Chapter Two. The paradigm, "The Four Domains of Fear of Falling", was developed to categorize the literature and add clarity to the FOF phenomenon. The research process is presented in Chapter Three. A multiple-case study design using methodological triangulation was selected to answer the research questions. Focused ethnographic interviews and questionnaires were supplemented by participant-observation. In addition, field notes, a field journal, and memos were kept throughout the research study. The data were integrated and presented in Chapter Four as four individual case studies. Participant One had debilitating arthritis and was housebound due to her FOF. Participant Two had osteoporosis and subsequently broke her hips several times from falls she sustained in her home. She expressed an extreme FOF and was also confined to her home. Participant Three appeared to be suffering great anxiety during the interviews. She stated that her FOF did not prevent her from going on with her life, however, her future was very uncertain due to a lack of informal support. Participant Four was legally blind from a condition called glaucoma. She described how distorted images, lack of depth perception, and loss of vision enhanced her FOF. In Chapter Five, the theme of uncertainty that emerged from the data analysis is interpreted using Mishel's (1988) theory of Uncertainty in Illness. As such, the research unfolded as a process, capturing the complex circumstances involved in the FOF phenomenon and the closely-linked coping strategies used by the participants. The role of social support in maintaining independence and reducing uncertainty in relation to FOF are highlighted in Chapter Six. Implications for nursing practice and recommendations for nursing education and research brought this final chapter to a conclusion. The research, its application to nursing theory, and the development of a paradigm provide new and exciting opportunities for nursing practice and research.

CHAPTER TWO: LITERATURE REVIEW

The review of the literature highlights two decades of research published on elderly women who live alone and accidental falls, and three decades of research published on the phenomenon fear of falling (FOF). The review consists of selected sources of literature in relation to the research question, and as such, is not exhaustive in nature. Strategies for reviewing information sources included: computer, interlibrary, and manual searches in University of Alberta and off-campus libraries. These searches resulted in a review within the healthcare disciplines of nursing, medicine, psychiatry, behavioral and social sciences, physiotherapy, and occupational therapy. Additionally, information was collected through personal interviews with an expert on falls. This chapter also includes a reviewal of explicit and implicit assumptions about living alone, falls, and FOF, as well as weaknesses in measurement and gaps in the literature.

Demographic Outlook

In Alberta, the elderly population, 65 years and older is steadily rising at a rate faster than any other age group under age 65 (Statistics Canada, 1992a). By the year 2021, the population aged 65 and over is projected to almost triple in size, pushing the proportion of the elderly population in Alberta up to 16.5% (Seniors Advisory Council for Alberta [SACFA], 1992). Notwithstanding, the proportion of elderly men to women living in Alberta is not equal, as women outnumber men in each senior age group (i.e., age groups as defined by Statistics Canada: 65-74, 75-84, 85-89, and 90 years plus). This imbalance originates from the difference in life expectancies between women and men, with women living longer than their counterparts. Thus, elderly women in Alberta constituted a greater proportion (56%) of all age groups combined in 1991 (SACFA, 1992). Northcott

(1992), however, points out that these statements cannot be applied universally, as there are parts of northern Alberta where older men outnumber older women.

Consistent with the gender inequality found in most parts of Alberta, it was no surprise to find that women are the most likely group to be "single" (widowed, divorced, or never married) in old age (Kennedy & Coppard, 1987; McDaniel, 1986). The proportions of single women are, however, quite astonishing. For instance, in 1991, 48% of women 65 to 74 years old were unmarried, and an alarming 91% of elderly women, 75 years or older, were either widowed, divorced, or never married in Alberta (Statistics Canada, 1992a).

In Canada, 245,600 or 26% of older women 75 years and older lived alone in 1986, and Priest (1988) projects a 6% average increase per year. In fact, the proportion of women 75 and older living alone is expected to increase to 45% (474,000) by 2001. At the same time, the proportion of older women living with others is expected to sharply decline from 23% in 1986 to 10% in 2001. Priest states that the increased numbers of older women living alone is likely to continue, as women in this age group will probably outnumber men by almost two to one by the year 2026. Interestingly, this finding was found to be contradictory to other epidemiological forecasts. For instance, Northcott (1992) believes that at least to a degree, there are indications that the life expectancy of males may be beginning to catch up with female life expectancy.

Worobey and Angel (1990) would agree that the trend for living alone for both men and women will continue. They believe that this growing trend is due to the aging Baby Boom cohort, which has grown up in small nuclear families. Novak (1988; 1993) claims that in Canada, elderly men who live alone tend to live in private homes, whereas elderly women who live alone tend to live in apartment-style dwellings. Further, Northcott (1988) found that geographic mobility or changes in residence among the elderly Canadians (65 years and older) and near-elderly (55 to 64 years) varied noticeably with marital status. He found that the separated and divorced, followed by the widowed were the most mobile, while the currently married and the never married were the least likely to move.

The end of life is often preceded by events that lead to a series of changes in residence. The changes of residence in older age are aimed at simplifying living circumstances, reducing expenses, and gaining assistance from family, friends or formal institutional arrangements. Thus, loss of independence in old age tends to precipitate changes of residence that are under forced circumstances rather than preference. Regardless of the predispositions of elderly individuals or the reasons why they choose to live alone, it is in one sense, a way of solving problems of living. It is also a lifestyle, which often goes unrecognized (Rubinstein, Kilbride, & Nagy, 1992).

Elderly People Living Alone: An "At Risk" Group?

In several American and British studies, researchers have found that, in relation to elderly people who live with others, those 65 years and older who live alone are not excessively needy or vulnerable. These findings have led researchers to believe that the view of elderly people living alone as an "at risk" group has historical roots which may not be relevant today (Davis, Neuhaus, Moritz & Segal, 1992; Iliffe et al., 1992; Magaziner, Cadigan, Hebel, & Parry, 1988). These studies have also challenged the World Health Organization's (WHO, 1977) one-time description of elderly people living alone as an "at risk" group. However, Magaziner and Cadigan (1989) contend that many studies have limited application to the aged residing in the community, since they concentrate on survival rates or severe problems such as: alcoholism, suicide, and mental illness - the very conditions that remove the elderly from the community.

Several reputed experts in gerontology believe that since individuals 65 years and older who live alone will constitute the majority of the elderly population in the near future, the growing trend is of particular importance (Beckingham, 1993; Berg & Cassells, 1990; Novak, 1993). Beckingham (1993) maintains that while the majority of older Canadians enjoy good health, many others require additional support to retain their independence and remain in their own homes.

Social Relations and Family Support

Although most older people depend on informal support networks for emotional and healthcare support, some trends suggest that informal supports will decline in the future (Novak, 1993). These trends result from cohort attrition (death of peers over time) and smaller families for the Baby Boom generation (Stone, 1985). As well, very little has been written about how the use of social and community supports vary within different living arrangements (Magaziner & Cadigan, 1989). However, several recent studies have identified major concerns in the community care of elderly women who live alone. These concerns indicate that the special care and mental health needs of this group may still need to be addressed. Elderly women also differ from other groups, with respect to the nature and use of their community care networks (e.g., Kemp & Acheson, 1989; Magaziner & Cadigan, 1989; Worobey & Angel, 1990). Hess and Soldo (1985) similarly believe that unmarried older people have smaller support networks than married people. In addition, these experts stress that unmarried older people rely more on formal healthcare services, such as home care.

Magaziner and Cadigan (1989) found that elderly women who live alone have more psychological vulnerabilities, as this group lack "built-in" support systems. Because these women do not have the benefit of a partner or live-in companion, they are less likely to perceive that someone would care for them should they become ill for an extended period of time. Furthermore, when care comes from multiple sources, the formal and informal support services must be coordinated by someone, and elderly women living alone may be incapable of coordinating care for themselves when they are acutely ill or have decreased mobility. Recent studies indicate that there are also many elderly women living alone who do not have someone to contact in case of an emergency. Not having regular and frequent contact with neighbours, friends, or family, puts this group of elderly women at increased risk (Iliffe et al., 1992; Kemp & Acheson, 1989; Magaziner & Cadigan, 1989).

Novak (1993) states that the support needed by elderly people is mainly provided by their adult children. Aronson (1990) would agree, as she reports that in Canada, only 10% to 15% of the total care of old people originates in the public sector; the balance, 85% to 90%, is provided informally, generally by female relatives. However, Aronson informs us that with women's increasing participation in the paid labour force, the critical pool of unpaid female family caregivers may diminish. In addition, there are very old people who will outlive their children, while others, for a variety of reasons (e.g., never married, unable to bear children, or personal choice) do not have any children to turn to for support (Novak, 1993).

Novak (1993) also states that because women outlive men, more older women turn to their children for support. However, Connidis (1983) and others (e.g., Aronson, 1990) found that most older women in their studies do not wish to become dependent or a burden on their adult children. Aronson (1990) believes that the relationships between women of different generations are heavily loaded with expectations and constraints which sometimes manifest in the form of interpersonal strain. She also believes that a significant ingredient in producing such strain is the limited availability of publicly provided services and supports. Aronson adds that older women often feel they have marginal status within the social structure of society and their family life. Conclusively, Aronson emphasizes that it is crucial that the provision and receipt of care between generations of women in families be recognized as occurring in a coercive context. This recognition is made necessary by public policies and cultures that inhibit the development of alternatives.

Accidental Falls

Kennedy and Coppard (1987) believe that "older people's fears of suffering serious injuries from falls are real" (p. 4). In 1988, 43,403 Canadian seniors received hospital treatment as a result of a fall-related injury (Neilson, 1989). In Alberta, falls are the leading cause of "injury requiring hospitalization" for ages 65 to 84 (Cree, 1993). Falls are also the leading cause of "injury resulting in death" for ages 85 and older. Triscott (1990) reports that almost one out of every three seniors fall each year, and that falls account for 87% of all fractures among the elderly. She also claims that more than one-half of all fall injuries occur in or around the home.

In Canada, millions of dollars are spent annually treating and rehabilitating those who have fallen (Morse, Black, Oberle, & Donahue, 1989). The basic cost for hospital beds alone, totalled 480 million dollars for fall injuries in 1988 (Neilson, 1989). Moreover, frequent falls is one of the main reasons for institutionalization of the elderly (Morse, 1986; Smallegan, 1983).

Most falls occur among older women (Kennedy & Coppard, 1987; Prudham & Evans, 1981), even as much as twice as often (Campbell et al., 1990; Glynn et al., 1991; Lipitz et al., 1991; Miller & Kaiser, 1993; Sorock, 1988). In addition, there is a direct relationship between accidental falls and age. That is, as age increases, so does the fall rate (Craven & Bruno, 1986; Prudham & Evans, 1981). Statistically, this means that women who are 75 years or older are at a significantly higher risk for falling.

Measuring Risks for Falling

Healthcare experts have designed a variety of risk assessment scales for falls to be used by professionals. The majority of assessment tools target patients in institutions (e.g., Barbieri, 1983; Corbett & Pennypacker, 1992; Morse et al., 1989; Tinetti et al., 1986), while others focus on personal or environmental risk factors in the home (e.g., Schlapman, 1990; Tideiksaar, 1986). Still other risk assessment scales have been designed for use by seniors themselves (e.g., Parsons & Levy, 1987; Robson, 1993).

Miller and Kaiser (1993) suggest that the clinician should pick one or two approaches for screening and diagnosing falls, and learn to use them well while awaiting further breakthroughs. Moreover, healthcare professionals in the City of Edmonton confirmed that the "Steady as you Go" self-assessment pamphlet is the only tool that has been used in the community setting in the City of Edmonton. However, this questionnaire was designed for self-assessments of the well elderly living in the community. A thorough analysis of the literature and the community led to the conclusion that it was necessary to design an assessment guide for falls for this study.

Relationships Between Falls, Frailty, and Transition

Speechley and Tinetti (1991) found that the frequency of falls was much higher among the physically frail elderly than the vigorous elderly. In addition, they believe that individuals in transition are beginning to decline and are at great risk of continued loss of function and future falls. They define frailty using nine variables: age over 80, balance and gait abnormalities, infrequent walking for exercise, depression, use of sedatives, decreased strength in shoulders, decreased strength in knees, lower extremity disabilities, and near vision loss. They suggest that vigor has four characteristics: age under 80, intact cognition, frequent exercise other than walking, and relatively good vision. Using these criteria, individuals are considered frail if they possess at least four frail attributes and no more than one vigorous attribute. Conversely, vigorous elderly possess three vigor attributes and two or fewer frail attributes. Elderly individuals who do not meet the criteria for frailty or vigor are considered to be in transition by Speechley and Tinetti.

Furthermore, Meleis (1991) explains that the "health/illness transition" (p. 104) includes not only changes in health status and physical abilities, but also changes in personal expectations and role relationships. Undoubtedly, falls have devastating physical consequences on the elderly, increasing mortality, disability, and loss of independence (Craven & Bruno, 1986). However, changes in perceptions of self as well as changes and abandonment of roles can profoundly affect self-concept, family and social relations and activities, future health, and wellbeing (Loveys, 1990).

Psychological Trauma From Accidental Falls

The number of publications that acknowledge the importance of FOF rarely integrate the phenomenon into their research (e.g., Corbett & Pennypacker, 1992; Nelson & Amin, 1990; O'Loughlin et al., 1993; Sehested & Severin-Nielsen, 1977; Tinetti et al., 1986; Winter et al., 1990). This lack of integration has left a noticeable gap in the literature. Similarly, several experts have reported that although the physical trauma resulting from accidental falls is well documented, the psychological impact of a fall often goes unrecognized (Brummel-Smith, Kottke, & Williams, 1988).

Nevertheless, Tideiksaar and Kay (1986) have found that 50% of patients they studied died within one year because of physical and psychological complications from their falls. Campbell et al. (1990) also report that falls lead to a decrease in loss of confidence and activity, and are a marker of underlying morbidity and increased likelihood of death. These studies indicate that falls and FOF may have potential for grave consequences.

Many experts indicate that elderly persons with a FOF must deal daily with anxiety and loss of confidence. This fear leads to avoidance of activities which can further lead to depression, dependency, and social withdrawal and isolation (Brummel-Smith et al., 1988; Kennedy & Coppard, 1987; Nelson & Amin, 1990; Weagant & Daniell, 1986). Fear of falling may also diminish an individual's sense of well being and may hinder recovery from a fall (Brummel-Smith et al., 1988; Nelson & Amin, 1990; Walker & Howland, 1990).

Health experts also believe that FOF may act as a major deterrent to daily mobility and independence (Craven & Bruno, 1986; Sehested & Severin-Nielsen, 1977; Vellas et al., 1987; Winter et al., 1990). Once the psychological effects of FOF set in, the elderly individual may eventually become bedridden. Moreover, experts believe that FOF may result in institutionalization (Mitchell, 1984; Vellas et al., 1987).

Arfken et al. (1994) found that the prevalence of FOF increases with age, is greater among women, and is associated with decreased quality of life and increased frailty. The prevalence of FOF among women was confirmed in several other studies which asked subjects if they had a FOF (e.g., Dayhoff et al., 1994; Maki et al., 1991; Murphy & Isaacs, 1982; Ryynanen, 1994; Tinetti et al., 1990; Walker & Howland, 1990). However, Arfken et al. (1994) state that they do not know how the FOF was triggered, or how long the older women in their study had been fearful. These authors believe that a more extensive look at the FOF should incorporate these factors.

The Fear of Falling Phenomenon

At first glance, FOF appears to be an uncomplicated phenomenon that requires no further explanation. Many healthcare researchers appear to subscribe to this belief, as they do not define FOF in their publications. In fact, the FOF as a phenomenon is an obscure concept, which lacks clarity and precision (Tinetti et al., 1990). Further, the literature does not support a single conceptual definition or cause of FOF. This is due, in part to inadequate empirical knowledge and difficulties arising from measuring this phenomenon (Tinetti & Powell, 1993).

Measuring the Fear of Falling

Recent research attention has been directed towards the development of instruments which measure FOF. Three types of instruments to measure FOF were identified in the literature. One type is the single item scale (i.e., Are you afraid of falling?), which was used by several researchers (e.g., Maki, et al., 1991). However, single items are viewed as imprecise measurements (American Psychological Association, 1985). They introduce considerable errors in measurement as they can inaccurately measure variables and seldom differentiate variations in phenomena among people (Nunnally, 1978).

Tinetti et al. (1990) have developed an instrument to measure FOF, called the "Falls Efficacy Scale" (FES), which is adapted from Bandura's (1982) work on self-efficacy. This scale is based on the operational definition of FOF as, "low perceived self-efficacy at avoiding falls during essential, non-hazardous activities of daily living" (p. M239). Their findings indicate that certain experiences specific to the fall, rather than the fall itself, may be the decisive factor in determining who acquires a FOF. However, low self-efficacy has been criticized for its lack of validity as a useful tool for measuring FOF, since it is possible that low self-efficacy is a measure of the perceived difficulty of a task, rather than a measurement of fear (Dayhoff et al., 1994).

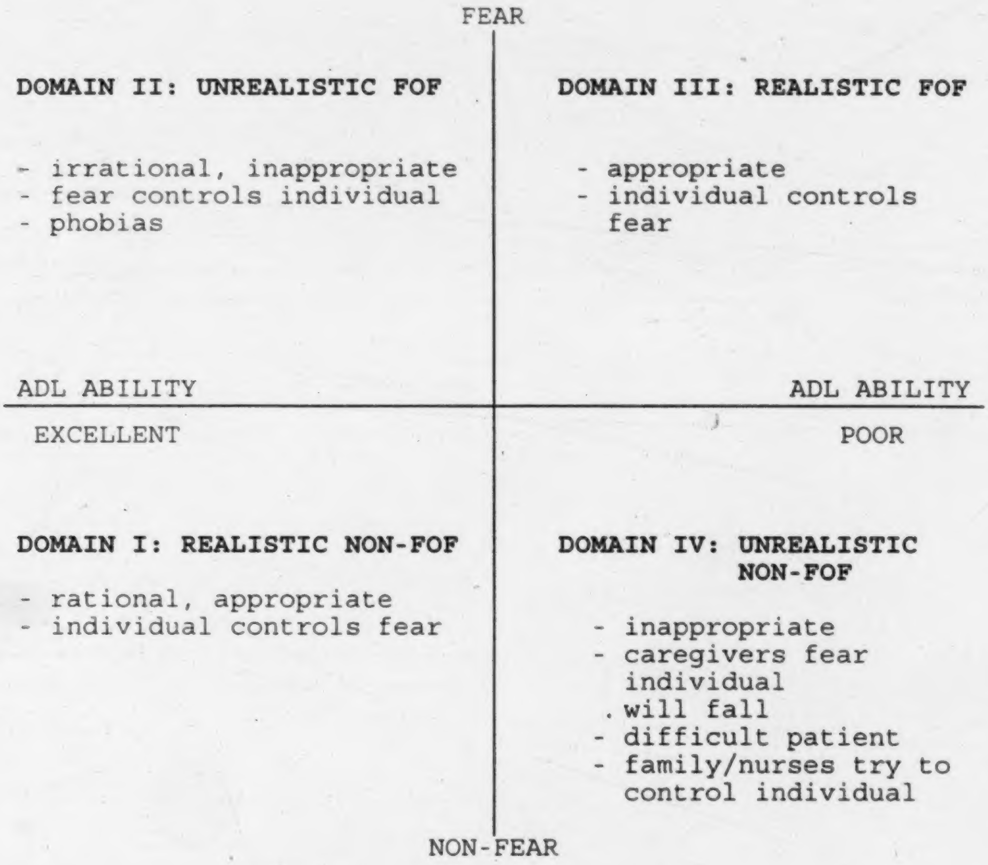
The most recent tool developed for measuring FOF is the "Fear of Falling Questionnaire" (FFQ), which was constructed and revised by Dayhoff and colleagues (1994). The FFQ measures the "core relational theme of concrete and sudden danger of imminent physical harm", as proposed by Lazarus in 1991 (p. 235). Dayhoff and colleagues define FOF and variations in the fear as: "(a) the appraisals of what harm might occur as a result of a fall, of the perceived coping potential to control or prevent harm, and of the seriousness of the harm, and (b) the emotion of fear" (p. 98). Their study provides empirical evidence in the validity, reliability, and sensitivity of the scores of the FFQ. Construct validity was determined by using three procedures: factor analysis, comparison with measures of related constructs, and contrasted-group comparisons. They believe that healthcare providers could use the FFQ to assess whether an individual's FOF appraisal is realistic or unrealistic. However, Dayhoff et al. (1994) state that the tool cannot predict future fear. In addition, further studies are necessary to clarify the need to add more items about FOF, to increase the homogeneity of the appraisal items, and to examine criterion-related validity about the accuracy with which the scores predict actual behaviour, such as realistic or unrealistic use of protective behaviours.

Three tools described above assist healthcare providers to distinguish between those individuals who have a FOF and those who do not, with varying degrees of accuracy. The FES is only useful for those individuals who have low self-efficacy, whereas the FFQ appears more applicable to the paradigm of the "Four Domains of Fear of Falling" (Figure 1) as it has the potential to assess whether an individual's FOF appraisal is realistic or unrealistic. This is an important consideration. Determining which domain describes an individual's condition (whether the FOF or non-FOF is realistic or unrealistic) may enable healthcare professionals to use appropriate interventions for alleviating the condition.

The Fear of Falling Paradigm

FOF is a universal phenomenon and studies on FOF have been published in several countries including: Italy, United States, Canada, United Kingdom, and Finland. To provide an organizing framework for the literature on FOF, I propose a paradigm in Figure 1 which captures four main domains of FOF. The domains are: Domain I: Realistic Non-FOF, Domain II: Unrealistic FOF, Domain III: Realistic FOF, and Domain IV: Unrealistic Non-FOF. These four domains differ in important ways. The first domain describes the individual who does not have any physical health problems, and thus, does not have a FOF. In the second domain, the healthcare provider would conclude that an individual's FOF is unrealistic if the individual does not have any physical health problems that would prevent the client from carrying out activities of daily living (ADL). In the third domain, one would conclude that an individual's FOF is realistic, if her abilities in carrying out ADL are poor or inadequate, due to physical limitations or failing health. Lastly, in the fourth domain, the individual does not have a FOF but should have, given her instability, cognitive impairment, or history of previous falls. Instead, caregivers and family members fear that the elderly person will fall. A review of the literature on FOF supports the proposed four domains of FOF.

Figure 1. The four domains of fear of falling.


FEAR
DOMAIN II: UNREALISTIC FOF
- irrational, inappropriate
- fear controls individual
- phobias
DOMAIN III: REALISTIC FOF
- appropriate
- individual controls fear
ADL ABILITY
ADL ABILITY
EXCELLENT
POOR
DOMAIN I: REALISTIC NON-FOF
- rational, appropriate
- individual controls fear
DOMAIN IV: UNREALISTIC NON-FOF
- inappropriate
- caregivers fear individual
. will fall
- difficult patient
- family/nurses try to control individual
NON-FEAR

Domain I: Realistic Non-FOF

In the first domain, the non-FOF is described as rational. Individuals live daily without FOF while completing their ADL. However, they may have a brief momentary FOF if a perceived situation of unsteadiness or danger arises (e.g., climbing a ladder).

Domain II: Unrealistic FOF

In the second domain, the individual is described as having an unrealistic FOF. FOF in this domain has been described in the literature by some psychologists as a phobia. These phobic reactions provide the historical roots of the development of the FOF phenomenon. Psychologists describe a phobia such as FOF as a learned behaviour (Doenges & Moorhouse, 1988; Dworetzky, 1985); however, phobias may also be attributed to changes in brain chemistry or symptoms of an underlying conflict (Dworetzky, 1985).

Several variations of the phobia FOF have been described in the literature. One variation, **acrophobia**, is a fear of heights that is sometimes linked to FOF. It occurs when there is no nearby support, and the individual fears being drawn over a high edge (Marks, 1966). Walking down a flight of stairs or peering out a window will bring on an acute FOF, or acrophobic reaction (Dworetzky, 1985; Marks, 1966).

A second variation is **space phobia**, which is defined as a "... fear of falling when perceiving space without nearby support. Sufferers need visual boundaries rather than physical support to walk or drive across open spaces" (Marks, 1987, p. 322). Isaacs (1978) stresses that a FOF often seen after an elderly person falls may be related to space phobia. However, Marks (1987) contends that the term space phobia should not be considered synonymous with a "falling phobia", as the former term also includes individuals whose main fear is space and depth cues while driving a vehicle.

A third variation of phobic FOF is termed **ptophobia** by Bhala et al. (1982). They propose that ptophobia is "the phobic reaction to standing or walking - is a distinct clinical entity unrelated to agoraphobia ..." (p. 187). Elderly subjects they studied had experienced at least one fall, which indicates a learned fear response. These elderly people were unable to walk, and the phobia of falling became more entrenched the longer they avoided walking.

The fourth variation, **fallaphobia**, was described by Silverton and Tideiksaar (1989) as the most common complication to occur following a fall. They defined fallaphobia as, "an abnormal fear of falling, characterized by a restriction of activities that lead to the fall" (p. 89). In addition, panic attacks, sudden anxiety, a feeling of impending doom, and intense apprehension may accompany the FOF. Dizziness or heart palpitations may also be present when the individual is attempting a previous fall-related activity. These attacks, however, subside within a few minutes when the feared activity is accomplished or abandoned.

The fifth variation is a cluster of symptoms termed **post-fall syndrome**. Although it is not defined as a "phobia", Murphy and Isaacs (1982) claim that the symptoms resulting from a fall resemble that of space phobia. They found that elderly subjects who expressed a great FOF when standing, had a tendency to grab and clutch at any nearby object without considering its ability to support their weight. These patients also exhibit an irregular walk and marked hesitance. Additionally, they are more likely to have suffered previous falls, have lain for more than one hour following a fall, and been housebound for an unidentified period of time. Within four months, 35% of the subjects with post-fall syndrome died, indicating that this syndrome has the potential for grave consequences.

The post-fall syndrome is also described as psychological sequelae that can lead to a loss of self-confidence in one's ability to perform routine daily tasks, as well as social withdrawal, depression, or confusion. These psychological factors in turn, can lead to self-imposed restrictions in activity, a decrease in mobility, and an increase in dependence (Nevitt, 1990).

Tinetti and Powell (1993) define FOF as "a lasting concern about falling that leads to an individual avoiding activities that he/she remains capable of performing" (p. 36). Several authors describe the onset of anxiety and self-imposed restrictions as going far beyond the physical disability or injury resulting from a fall (Roughan, 1993; Tinetti & Powell, 1993).

Other studies indicate that certain personality traits may support the FOF (Tinetti et al., 1990), or describe FOF as being a psychogenic symptom (Maki et al., 1991; Tinetti et al., 1990). Additionally, several researchers found an association between psychotropic drug use and FOF, indicating that psychosis and insomnia (Franzoni et al., 1994), as well as anxiety and depression (Cwikel et al., 1989; Downton & Andrews, 1990; Franzoni et al., 1994) may be related to the FOF. In addition, subjective dizziness (Downton & Andrews, 1990) and hypotension from psychotropic drug use (Gray-Miceli, Waxman, Cavalieri, & Gage, 1994) may support the FOF.

Domain III: Realistic FOF

In the third domain, the FOF is described as realistic, where the individual controls the fear by attempting to avoid perceived dangerous situations. This claim is supported by some authors who define FOF, "not in the phobic sense of a morbid preoccupation, but in terms of the self-limiting of activities and behaviours" (Speechley & Tinetti, 1991, p. 78).

Marks (1987) believes that FOF in the elderly is due to physiological contributory factors including, poor agility, risk of fractures, focal neurological damage, and loss of neuronal righting reflexes. When these factors are present, the fear becomes realistic, and should not be classified as a phobia. Silverton and Tideiksaar (1989) note that FOF is considered pathologic if individuals are unable to perform ADL; but if their FOF does not compromise ADL, then it is a protective coping behaviour.

In one recent study, Franzoni and his colleagues (1994) identified FOF as the most significant predictor of changes in the functional assessment scale, "Barthel Index". They believe that specific aspects of falls may cause the FOF, rather than the fall itself. When these factors can be fully described, FOF could be used as an indicator of a decline in functional status.

Domain IV: Unrealistic Non-FOF

In the fourth domain, the non-FOF is described as unrealistic or irrational. That is, these individuals fail to accurately perceive that they are at risk for falling. Thus, the "worry burden" or emotional suffering is placed upon healthcare providers when they fear that their patients will fall (Brady et al., 1993; Heslin, 1993). This usually occurs when nurses feel that they have lost control over their ability to prevent patient falls (Halpert & Connors, 1986; Heslin, 1993). Nurses identify these patients as cognitively impaired (Ryynanen, Kivela, Honkanen & Laippala, 1992), fiercely independent, or in denial about their FOF (Ayn-Wright et al., 1990; Halpert & Connors, 1986). For example, recurrent falling in elderly women was related to the "non-occurrence of fear of falling" (Ryynanen et al., 1992, p. 277).

Interventions directed at preventing falls may result in negative consequences in some cases. For instance, Brady et al. (1993) believe that motivating patients to decrease their mobility following a fall, by either physically or verbally restraining them reinforces their FOF, resulting in further loss of independence and self-esteem, which may develop into other life threatening complications.

In the community setting, informal caregivers may also fear that an aging family member may fall. As a consequence of their fear, they may try to discourage activity (Tinetti & Speechley, 1989). In spite of good intentions, overprotectiveness by doing activities for the elderly which the senior is still capable of doing, results in negative reinforcement. Overprotectiveness may also potentiate lack of confidence and self-esteem in elderly people. Families may consider institutionalization as a desperate alternative, when they fear that an elderly family member living alone may fall and cannot get immediate help (Cwikel et al., 1989; Tinetti & Powell, 1993).

In sum, the proposed paradigm organizes the presentation of the literature on FOF. The four domains make important distinctions between realistic and unrealistic FOF and realistic and unrealistic Non-FOF. Although the studies contained within the paradigm are instructive, further research is necessary to test and confirm when the intensity of FOF is appropriate (realistic) or not appropriate (unrealistic) among the elderly population (Walker & Howland, 1990).

Fear of Falling and Living Alone

Several studies have linked increased falls with three factors: living alone, social isolation, and low levels of supportive interactions. Additional factors that are consistently associated with falls are FOF, depression, and poor subjective health rating (Cwikel et al., 1989). However, the significance of these factors remains unclear. Many experts believe that FOF is the major deterrent to daily mobility and loss of independence (Sehested & Severin-Nielsen, 1977; Vellas et al., 1987; Winter et al., 1990). Cwikel et al. (1989) reveal that FOF among elderly individuals who live alone is a critical factor in their decision to move to a more protective environment. Moreover, FOF may be greatly increased by low levels of supportive interactions. Very few published studies describe what the experience of living alone is like for elderly women (e.g., Jones-Porter, 1994; Rubinstein et al., 1992). No studies use a qualitative approach to describe the perceptions of elderly women, with respect to FOF and living alone.

Research Questions Arising from the Literature Review

I developed nine research questions to address unexplored areas identified in the literature for which statistical sampling techniques were unsuitable. They include: (1) what are older women's perceptions on how long they had a FOF, and (2) what triggers FOF? Through methodological triangulation, I also examined the question: (3) when is the intensity of FOF appropriate or not appropriate? Other questions that related to the participants' lifestyle were: (4) what are the attitudes, feelings, and behaviours of elderly women who live alone with the FOF on a daily basis? (5) how do older women who live alone with the FOF perceive their quality of life? (6) what meanings do older women who live alone attach to the FOF? (7) what does the home mean to older women who live alone with the FOF? (8) how do older women who live alone modify their home environment to accommodate their FOF? and lastly, (9) what role do formal and informal support systems play in constraining or facilitating the ability to maintain the independence of older women who live alone with the FOF?

Reflections on the Literature Review

An explicit assumption derived from the literature was that an association existed between accidental falls and the phenomenon FOF among older women within the context of living alone. Implicitly, the association between these variables confirmed that there was reason to suspect that the context of living alone could contain tacit, and perhaps hidden aspects of FOF that required further exploration.

A second assumption underlying the study was that there was reason to suspect that older women who live alone with the FOF could be living in conditions of risk that threaten their health, quality of life, and ability to remain independent. Most women are single in old age (Kennedy & Coppard, 1987; McDaniel, 1986; SACFA, 1992) and many older women live alone (Priest, 1988). Additionally, older women who live alone are at greater risk for accidental falls (Craven & Bruno, 1986; Cwikel et al., 1989; Weagant & Daniell, 1986; Wickham et al., 1989). They also are more psychologically vulnerable due to lack of "built-in" support systems (Iliffe et al., 1992; Kemp & Acheson, 1989; Magaziner & Cadigan, 1989). Research indicates that the proportion of older women living alone is expected to increase in the future (Priest, 1988), but informal support systems are expected to decline (Aronson, 1990; Novak, 1993; Stone, 1985).

The prevalence of FOF increases with age, is greater among women, and is associated with increased frailty (Arfken et al., 1994). Fear of falling is also a major deterrent to daily mobility and loss of independence (Sehested & Severin-Nielsen, 1977; Vellas et al., 1987; Winter et al., 1990), and may be greatly increased by low levels of supportive interactions (Cwikel et al., 1989). Hence, FOF becomes a critical factor in the decision to move to a more protective environment.

Two barriers to understanding the FOF were identified. The literature lacks a single conceptual definition or cause of FOF (Tinetti & Powell, 1993). In addition, the weaknesses and limitations of the instruments which measure FOF fail to discriminate when the intensity of FOF is appropriate and not appropriate among the elderly population (Walker & Howland, 1990).

A noticeable gap exists between the number of publications that acknowledge the significance of FOF among elderly people and the number of publications which integrate the phenomenon into their research studies. Although the research studies highlighted in this literature review are highly instructive, they tell us little about the perceptions of older women with respect to living alone with the FOF. Therefore, qualitative research was needed to explore the FOF experience among elderly women who live alone from the emic perspective. Nine research questions requiring investigation were identified and guided the research process.

CHAPTER THREE: RESEARCH PROCESS

The research design emerged from the many complex questions surrounding the phenomenon fear of falling (FOF). This chapter provides an overview of the design selected, the methods used for sampling and data collection, and the procedures used for analyzing the data. In addition, the issue of trustworthiness of the procedures, research findings, and researcher, as well as the ethical questions regarding the protection of human rights are also discussed.

Design: Method and Procedures

To answer the research questions in this study, the multiple-case study design was selected. Yin (1994) defines a case study as, "an empirical inquiry that investigates a contemporary phenomenon within its... context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13). In addition, the case study inquiry "relies on multiple sources of evidence, with data needing to converge in a triangulating fashion" (p. 13).

The case study approach allows "an investigation to retain the holistic and meaningful characteristics of real-life events" (Yin, 1989, p. 14). This approach is relevant to the underlying assumption of this study in that nurses and other healthcare professionals must consider the whole person in her own environment (Meleis, 1991).

Both the emic and etic perspectives were considered in this study. The former perspective is the participants' view of their reality, and the latter is the outsiders' perspective, the researcher's abstractions, or the scientific explanation of reality (Boyle, 1994; Dreher, 1994). Leininger (1985) believes that both of these concepts can be used in a complementary way to view reality, as seen by the elderly.

In this study, each older woman, her home, and her external environment was the subject of an individual case study. The study as a whole was a multiple-case descriptive design. Each case followed a replication logic, in that it was predicted that similar results would be obtained from each case (Yin, 1994). Nonetheless, Yin states that one cannot generalize from one case to another. Instead, he recommends that researchers try to aim toward "analytic generalization" in doing case studies, whether they are explanatory, descriptive or exploratory. In this sense, analytic generalization is defined as a method of generalization:

> ... in which a previously developed theory is used as a template with which to compare the empirical results of the case study. If two or more cases are shown to support the same theory, replication may be claimed. The empirical results may be considered yet more potent if two or more cases support the same theory but do not support an equally plausible *rival* theory (p. 31).

Although I was aware of the full range of theories that were relevant to my study (e.g., from Bandura's, 1982, theory on self-efficacy to Mishel's, 1988, nursing theory on Uncertainty in Illness), I delayed choosing a theoretical framework until the primary theme of the findings emerged. The strength of this approach was that it allowed the most relevant theory to emerge from the research findings. Similarly, Strauss and Corbin (1990) explain that "one does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge" (p. 23).

Definition of Terms

Several terms in this study required clarification: older women, FOF, and living alone.

Older Women

There are as many terms and definitions used to describe development and aging as there are authors and specialties (Beckingham, 1993). For example, Neugarten (1974), a reputed expert in the area of sociology, separates the stage of late adulthood into young-old age (65 to 75 years) and old-old age (75 years plus). In another example, census experts for Statistics Canada (1992c) classify the elderly into two distinct groups: those between 65 to 74 years old and those 75 years and older. The third example is derived from the literature on falls. Among other variables, experts Speechley and Tinetti (1991) use age as one criterion for distinguishing the frail elderly from the vigorous elderly, with the former being over age 80 and the latter being under age 80.

For the purpose of this study, I used the term "older women" to describe females who were 75 years or older. This definition corresponds with all three examples.

Living Alone

I defined living alone as living by oneself in an independent dwelling. Specifically, older women living in a private home, mobile home, or any self-contained cottage or apartment were considered eligible to participate in this study. Older women living in a collective dwelling, such as a lodge, hospital, or long term care centre (including: nursing homes and auxiliary hospitals) were not eligible to participate in this study.

Fear of Falling

The meaning of FOF lacks clarity and precision (Dayhoff et al., 1994; Tinetti et al., 1990), and the literature does not support a single conceptual definition. However, through the method of concept analysis, I formulated the following refined definition of FOF: FOF is a syndrome in which realistic or unrealistic feelings and behaviours of unsteadiness are present while attempting to mobilize (Desjardins, 1994). This definition served only as a general guideline, however, as the FOF was defined by the participants. Consequently, their interpretations of FOF had great significance in this study's research findings.

The Participants

Older women in this study were approached through a nonprobability convenience sampling method. Since the actual population was unknown, I posted notices in several seniors' complexes and advertised in local newspapers and a seniors' newsletter to obtain participants. Every person who met the criteria was asked to participate (Brink & Wood, 1988). Using this procedure, I was able to obtain participants who had first-hand knowledge about living alone and the FOF, and who could facilitate the data analysis process.

Sampling Procedures

Spradley's (1979) five criteria for selecting a good participant were used in locating participants for this study: (1) participants should have thorough enculturation; (2) participants should have current involvement in the culture; (3) the ethnographer should be unfamiliar with the cultural scene, to avoid taking things for granted, and to remain sensitive to things that have become so commonplace to participants that they ignore them; (4) participants should have adequate time to participate or be willing to make time because of their interest in the project; and (5) participants should be nonanalytic, unless they are able to analyze their own culture from the perceptions of an insider, and do not have preconceived ideas about older women who live alone with the FOF. The purpose of the last criterion was to ensure that the emic perspective was considered.

Selection Criteria

Participants were selected based on the following criteria: female gender, minimum age of 75, living in the Capital Health Authority region, living alone for at least two years and during the time of the study, able to speak English, at least partially mobile, willing and cognitively able to share experiences, and perceived themselves as having a FOF at the time of the study.

First, significantly more women aged 75 or older live alone than younger women (Statistics Canada, 1992b; Statistics Canada, 1992c). In addition, they were more likely to be frail or in transition, as described by Speechley and Tinetti (1991). They were, therefore, at greater risk for physical disabilities, falls, and having a "realistic FOF", as proposed in the FOF paradigm. Second, it was important that the women perceived themselves as having a FOF and were at least partially mobile at the time of the study so that I could collect richer data. Third, women who have lived alone for at least two years and at the time of the study was assumed to ensure full enculturation. In addition, there was reason to suspect that the context of living alone contained tacit, and perhaps hidden aspects of FOF. Therefore, it was extremely important that participants had special knowledge about living alone, as it affected the viability of the whole study. The final criterion was that the older women must be able to understand and speak English and cognitively capable of expressing their feelings. With these criteria, I was able to capture a full and accurate description of the experience of living alone with a FOF, as expressed by participants.

Access to Sample

I attempted to acquire participants for this study using several strategies (see Appendix A). First, I placed notices in the lobbies of six seniors' complexes and bulletin boards of two seniors' centres. A second strategy involved placing several advertisements in a seniors' community column of a community newspaper. A third and most successful strategy involved publishing news releases about the study in one seniors' newspaper and one seniors' newsletter. An Introductory Letter was made available to all potential participants (see Appendix B). Older women who were interested in participating in the study contacted me by telephone. During these initial contacts, I conducted a brief telephone interview (see Appendix C), to ensure that they met the selection criteria. I approached participants by advertising, and not through a community support group or health care agency (e.g., homecare), because city-wide advertising gave me the opportunity to access a heterogeneous group who varied in experiences, ethnicity, education, economic circumstances, and current health status.

Sample Size

Four older women participated in this study. Rather than having a large sample size, I aimed for rich qualitative data that was comprehensive, relevant, and detailed (Morse, 1991). Brink and Wood (1988) suggest that at the exploratory level, the sample size should be kept quite small, because the focus of the study is an in-depth analysis. Further, this sample size made the large amount of data collected for each individual more manageable (Morse, 1986; Sandelowski, 1986), and more appropriate for a master's thesis. Moreover, Yin (1994) suggests that two or three case studies should be conducted when each case follows a replication logic.

Data Collection

To provide the basis for conceptualizing the experiences of elderly women who live alone with the FOF, both qualitative and quantitative methods were combined in one research study. This combination of strategies is often referred to as methodological triangulation, whereby two known or visible strategies (i.e., qualitative and quantitative data collection) are used to plot a third (Breitmayer, Ayres, & Knafl, 1993). In this study, triangulation was used to accomplish two distinct purposes: to confirm the research findings and to obtain a comprehensive picture of the phenomenon. The data collection methods emerged following an intensive examination of the literature, research problem, and research questions, as well as the site, sample, and all possible methods. I also considered my own personal abilities (Marshall & Rossman, 1989).

Ethnography, which is "a generalized approach to developing concepts and understanding human behaviours from the insider's point of view" (Morse & Field, 1995, p. 25-26), best defines the methods chosen to explore the perceptions of the older women in this study. These methods included: semi-structured interviews, participant observation, field notes and journal, Demographic Data Form (DDF), Assessment Guide for Falls (AGF), and the Fear of Falling Questionnaire (FFQ) (Dayhoff et al., 1994). The reading levels for the Interview Guide, the AGF, and the DDF were assessed at a grade six level using the Correct Grammar program (see Appendix D).

During the proposal stage of this study, I also intended to have one or possibly two focus group sessions. However, the women in this study declined the invitation to participate, and therefore, each participant was interviewed twice in her own home. It is my belief that the women in this study were the experts for their own experiences, hence, women from outside the study were not interviewed.

Semi-Structured Interviews

The focused semi-structured interview was the primary data collection method. All participants provided key information and were fully involved in the study. Two visits were arranged with each participant, and an average of five hours was spent in total with each participant.

Morse and Field (1995) state that the semi-structured interview is a helpful technique to use when the researcher knows most of the questions to ask but cannot predict the answers. This technique also gave participants freedom to respond, illustrate concepts, tell stories that described incidents, and provide examples, while at the same time, ensured that I obtained all the information required. The purpose of using interviews in this study was to come closer to understanding the women's meanings and to discover how they organized their behaviour (Ely, Anzul, Friedman, Garner, & Steinmetz, 1991).

Interview procedures. All interviews were conducted in the privacy of participants' own homes, and as such, their homes provided a contextual setting which supported a natural, relaxed atmosphere to facilitate discussion. It also facilitated qualitative observation, which occurred in the natural context of participants' everyday life (Field & Morse, 1985).

The purpose of the research was explained in detail and an informed consent was signed at the beginning of the initial interviews. For all succeeding interviews, the consent form was reviewed. Each interview took approximately one and a half to two hours, and was audiotaped and then transcribed verbatim. Audiotaping the interviews allowed more time for observing in the setting and prevented intrusive note-taking. Clarification and validation of the older women's perceptions, attitudes and feelings were sought during the interviews. To remain sensitive to the comfort level of participants, and to ensure that interviews did not become too lengthy, I informed participants of the time limit at the beginning of the interviews and ensured that at least one break was taken during visits.

Arrangements were made with participants prior to each interview to spend only brief periods of time answering telephone calls. This request enabled me to complete the interviews within the time limit. However, answering phone calls also gave me an opportunity to observe their activities of daily living (ADL) during visits.

Interview Guide. The Interview Guide (see Appendix E) was designed following a review of the literature on falls, FOF, and living alone among elderly women. The questions were aimed at gaining a comprehensive picture of the FOF phenomenon among community-based older women, confirming assumptions identified in the literature, and analyzing areas which remained unexplored and for which statistical sampling techniques would be unsuitable.

Twelve tentative questions were developed to guide the interviews. Two additional questions were added at the end of every interview, as recommended by Morse and Field (1995). These questions were: "Is there anything you would like to ask me?" and "Is there anything else I should have asked you?" (p. 93). Most questions were prepared with probes, which were designed to elicit further information and to help the women who had difficulty expressing their feelings or concerns openly. As suggested by Bogden and Biklen (1992), the questions were open ended and concerned with meaning and process, rather than cause and effect. In addition, the questions had a focused approach to prevent the collection of superfluous information, which would compromise the efficiency and intensity of the analysis (Miles & Huberman, 1994).

The style of the interviews changed as the study progressed. To get comparable data on categories and themes that emerged during the initial interviews, questions became more focused as the interviews proceeded. Thus, questions varied from one participant to another. I did, however, remain open to allow the interviews to be directed by participants' responses (Bogden & Biklen, 1992; Field & Morse, 1985).

Early in the interviewing process, I realized that participants could not separate their FOF from other aspects in their daily lives. As such, they were not discouraged from discussing particular life events in our conversations. Ultimately, I was able to gain a fuller understanding of the FOF and the implications it had for their daily lives.

Participant-Observation

Adler and Adler (1994) stress that, "researchers must actively witness the phenomena they are studying in action" (p. 378). They also state that because qualitative observers are not bound by predetermined categories of measurement or response, they are free to search for concepts or categories that appear meaningful to subjects. In this study, I used the observer-as-participant type of participant-observation, as previously described by Pearsall (1965) and more recently described by others (Adler & Adler, 1994; Morse & Field, 1995). In this role, I observed participants while conducting informal interviews and while completing the structured instruments. The observer-as-participant role allowed me to observe the older women's behaviours within their environment, their use of the environment, and to study the environment itself, to provide rich data about living alone with the FOF. Moreover, participant-observation was used to validate research findings from the other methods used.

Spradley (1980) provides nine major dimensions of social situations that can be used in the initial phase to guide observations and pose questions. These questions provided an excellent guideline to describe the phenomenon and obtain a comprehensive picture of all possible relationships within the nine dimensions. In this study, the following dimensions served as a general guideline: (1) the physical place (space), for example, observing the details of older women's homes who live alone with FOF; (2) the people involved (actor), for example, observing older women with FOF in their own environment; (3) the physical things that were present in the homes (object), for example, observing the physical aids that older women with FOF used to maintain their balance; (4) the single actions they did (act), for example, observing older women with FOF touch something or someone to maintain balance; (5) the set of related activities that women carried out (event), for example, observing older women with FOF perform ADL; (6) the sequencing that takes place over time (timing), for example, observing older women with FOF make arrangements for housekeeping and homecare assistance; (7) the things women tried to accomplish (goal), for example, observing how the older women with FOF maintained their independence; (8) the set of related acts older women did (activity), for example, observing what older women living alone with FOF did with their time on a daily basis; and (9) the emotions felt and expressed by older women (feelings), for example, observing that older women's feelings of dizziness lead to FOF. These observations were recorded in the form of field notes.

Field Notes, Field Journal, and Memoing

Field notes, a field journal, and memos were kept throughout the entire study. The field journal helped me to identify and manage personal biases and feelings. The journal was written in a diary separate from other sources of data collection. Two sets of field notes were kept. Brief, sketchy field notes were written in the setting to avoid detracting from the interviews. These first level notes were re-written in detail on a computer file. The date, time, and place where the observation took place were included with each field note.

As suggested by Bogden and Biklen (1992), the field notes were rewritten the same day as the observation. In addition, several other suggestions provided by Morse and Field (1995) were used to facilitate the recording of observations and avoid losing valuable data. These points included: not discussing the observation before it was recorded, sequencing the events in the order they occurred, and letting the events and conversations flow from the mind onto the paper. In addition, they suggested using a tape recorder to dictate the observations following the interview. This technique was used in this study, since it takes nearly three times as long to record the observation as it does to do the observing.

Memos were written separately from the field notes and field journal. They were used to manage data by tying together different segments into a recognizable theme. Memos were dated and entitled with key concepts (Miles & Huberman, 1994).

Demographic Data Form

A Demographic Data Form (DDF) was completed by verbally questioning the participant at the beginning of the first interviews (see Appendix F). This form did not take more than 15 minutes to complete. The DDF was developed following an examination of the demographic data collected in other related studies found in the literature (e.g., Walker & Howland, 1990). The purpose of the DDF was two-fold. The primary purpose was to collect personal data about each participant regarding biological age, marital status, education, living arrangement, and present formal services needed and required. This information allowed me to compare other findings, and understand similarities as well as inconsistencies among participant responses in the research findings. For example, I found that one woman in the study who lived alone but did not have informal support responded differently to the interview questions and the questionnaires than participants who had informal support. The secondary purpose of the questionnaire was to screen the cognitive and memory-recall abilities of the potential participants.

Assessment Guide for Falls

Participants' risks for falling were assessed using the AGF, which I developed for this study. The guide contained 42 items (see Appendix G) and was completed following the DDF. I verbally questioned participants on each item listed in Sections One to Six. Then I assessed the environment according to the questions listed in Section Seven. The AGF took no longer than 45 minutes to complete.

The AGF was used in this study for two functions. One function was to gather information about the participant, such as history of falls, health history, physical mobility, mental health and behaviour, and the participant's footwear. The second function was to observe each participant's living conditions and lifestyle using objective criteria related to the aim of the study. In addition, I compared the data obtained from this tool to other quantitative and qualitative data collected.

Several questions in the AGF were borrowed and revised with permission from the "Steady as you Go" self-assessment pamphlet (see Appendix H for Letter of Consent). This self-assessment pamphlet was developed by Robson (1993), for a seniors' fall prevention project which ran for one year on a trial basis. The project was targeted at the well elderly living in the community (E. Robson, personal communication, August 22, 1995). The questions were developed from a review of the literature and by interviewing experts for each identified risk factor.

Other sections of the AGF were developed following a literature review on falls and FOF among elderly people. In an attempt to capitalize on the strengths of several tests and the findings of significant studies, I used a combination of risk factors in the AGF. Each section of the AGF is discussed separately.

Section One consists of one risk factor, age. Increasing age is identified in the literature as an important characteristic for increasing the risk of falls and multiple falls (e.g., Barbieri, 1983; Campbell, Reinken, Allan, & Martinez, 1981; Gross, Shimamoto, Rose, & Frank, 1990; Morse et al., 1989).

The risk factor identified in **Section Two** is a history of falls. Many experts recognize that once one fall has occurred, there is an increased risk for further falls (e.g., Barbieri, 1983; Morse et al., 1989; Schlapman, 1990). History of falling was not limited to a specific time period, as the elderly often have limited recall of when falls actually occur (Cummings, Nevitt, & Kidd, 1988). More details about when and how falls occurred were collected during interviews.

Section Three contains 13 factors related to the present health of the client. The first factor includes clients with a history of a chronic illness, such as stroke, diabetes, arthritis, or osteoporosis. These chronic illness are linked to risk for falls in the literature (e.g., Campbell, Borrie, & Spears, 1989; Campbell et al., 1990; Heckheimer, 1989; Morse et al., 1989; Schlapman, 1990). The "Steady as you Go" self-assessment pamphlet (Robson, 1993) lists surgery in the past year as a risk factor for falls. Unmanaged pain has also been identified as a risk factor (e.g., Heckheimer, 1989; Schlapman, 1990). In addition, dizziness, which is usually associated with orthostatic hypotension is indicated as a risk factor (e.g., Barbieri, 1983; Campbell et al., 1989; Campbell et al., 1990; Heckheimer, 1989).

Other important factors include the presence of urinary urgency or nocturia. Since these factors are often followed by quick or impulsive action, the elderly person is placed at increased risk of falling (Barbieri, 1983; Parsons & Levy, 1987). In addition, lack of regular exercise (e.g., Schlapman, 1990), obesity (50 pounds over ideal weight), vision problems (especially those not corrected by eyewear); and getting enough sleep during the night (Robson, 1993) were identified as other risk factors in the literature. Certain medications (e.g., diuretics, hypnotics, etc.) and consuming more than 15 alcoholic beverages per week were also known to increase the risk for falling (e.g., Heckheimer, 1989; Robson, 1993; Schlapman, 1990). The questions pertaining to alcohol consumption were from Bates, Bickley, and Hoekelman's (1995) guidelines for physical examinations and history taking.

Lastly, participants were asked to describe their current health status. Robson (personal communication, August 22, 1995) stated that participants' descriptions of their current health status will assist the researcher in identifying whether the older women are vigorous, frail, or in the transitional phase, as described by Speechley & Tinetti (1991).

Section Four includes four risk factors related to the physical mobility of the client. The need for an ambulatory aid and an impaired or weak gait is identified as a risk factor by several experts (e.g., Morse et al., 1989; Campbell et al., 1981). These factors are related to balance, gait, and the ability of the client to transfer independently from one location to another (e.g., Tinetti et al., 1986). In addition, experts have identified that foot problems may decrease mobility and subsequently increase an individual's risk for falling (e.g., Robson, 1993).

Section Five includes risk factors related to the mental health and behaviour of the elderly client. The first factor is the client's judicious use of hallway lights, glasses, cane, etc. when rising during the night (e.g., Gross et al., 1990). Living alone, loneliness, isolation, depression, anxiety, forgetfulness, and inability to cope with recent losses are all shown to increase the risk for falls among older people (e.g., Campbell et al., 1981; Craven & Bruno, 1986; Cwikel et al., 1989; Weagant & Daniell, 1986; Wickham et al., 1989; Ryan et al., 1993). Lastly, not paying close attention (Robson, 1993) and extreme independence are identified with increased risk for falls (Ayn-Wright et al., 1990; Halpert & Connors, 1986; Robson, 1993).

Section Six focuses on incorrect footwear as increasing the potential for falls. For example, soles without treads on shoes worn outside and shoes that are loose, slippery, floppy, oversized, or worn more on one side than the other (Robson, 1993).

Lastly, **Section Seven** includes risk factors related to the environment inside the home and outdoors. The environment is identified as an important area for client and health care providers to thoroughly examine for possible hazards, because the majority of falls caused by environmental factors are potentially avoidable (e.g., Heckheimer, 1989; Schlapman, 1990; Tideiksaar, 1986). The questions in this section were taken directly from the "Steady as you Go" (Robson, 1993) self-assessment pamphlet and revised to match the AGF format. However, several questions regarding the safety of participant's furniture and temperature of the home were adapted from the Home Hazards Checklist developed by Tideiksaar (1986). In addition, Dr. Anderson (personal communication, August 29, 1995) identified that outdoor stairs without handrails or handrails that are not accessible increase the risk for falls. To conclude this assessment, a section was added for comments made by the participant or myself that were relevant to the study.

Fear of Falling Questionnaire

Another structured instrument, the FFQ, was completed following the AGF. This questionnaire was designed and tested by Dayhoff et al. (1994), and consists of twenty statements. Dayhoff and colleagues (1994) provide empirical evidence that the sensitivity, reliability, and validity of the FFQ scores to variations in FOF are strong enough to warrant the use of the instrument to examine FOF. The authors derived items for the FFQ from the literature on falls and from informal interviews with older adults. Construct validity was determined using three statistical techniques: factor analysis, comparison with measures of related constructs, and contrasted-group comparisons. The possible total score range is 20 to 80. For this study, the total scores were determined and compared to the mean scores of the original study. The questionnaire and permission to use it in this study are provided in Appendix I.

Participants chose a number on a four-point Likert-type scale that represented the extent to which they agreed or disagreed with each statement. Each participant was given a copy of the questionnaire to follow visually, as I verbally questioned and marked each item.

The rationale for using the FFQ in this study was to confirm whether participants had the FOF. This avoided interviews with women who did not have knowledge about the phenomenon, a common sampling error in research (Brink, 1987). Additionally, by comparing the responses from the FFQ with responses from the AGF, I was able to establish whether their FOF was realistic or unrealistic.

Data Analysis

Data analysis began early and was conducted simultaneously with data collection. Using this method of analysis I was able to narrow the focus and strengthen the research study by building future interviews and observations on the outcomes of previous ones (Bogden & Biklen, 1992). Further, it is my belief that I was part of the research, and not separate from it, and this method provided me with opportunities to become immersed in the participants' lifestyle. Therefore, the initial visits were arranged so that I had an opportunity to transcribe the audiotape and conduct a preliminary analysis of each interview (i.e., identify emerging ideas, concepts and themes) before interviewing the next participant. I personally transcribed each tape, and then each script was read with the tape playing to ensure that I had transcribed verbatim. An academic expert in communication skills provided a critique of my interviewing skills based on a pre-test taped interview (Appendix J).

To improve my skills during the interview process, I personally critiqued every transcript (Morse & Field, 1995). Notations of when I did not use good communication skills were noted in the right-hand column of the transcript, and these areas were pursued in greater depth in subsequent interviews. For instance, when I did not give a participant adequate time to respond to a question, the same question was asked again in the next interview.

Yin (1994) explains that there are five levels of questions in a multiple-case study protocol. These levels include:

> Level 1: questions asked of specific interviews
> Level 2: questions asked of the individual case (these are the questions in the case study protocol)
> Level 3: questions asked of the findings across multiple cases
> Level 4: questions asked of the entire study - for example, calling on information beyond the multiple cases and including other literature that may have been reviewed
> Level 5: normative questions about... recommendations and conclusions, going beyond the narrow scope of the study (p. 71).

The five levels of questions were used to analyze the data in this study and are discussed separately.

Level One

In the first level of analysis, quantitative data (i.e., questionnaires) and qualitative data (i.e., interviews and field notes) were studied and re-studied to develop detailed, intimate knowledge of the data (Corner, 1991). A preliminary analysis of the transcripts was conducted. A case report, which is the presentation of information beyond that of the raw case data (Yin, 1994), was then compiled for each participant. The case report consisted of all qualitative and quantitative data collected for each participant, facilitated the organization and analysis of important ideas, concepts, and categories, and expedited the construction of the case studies.

The case report was then used to complete the case analysis (Patton, 1990). Initial impressions and emerging ideas and concepts were noted using a coding system. Substantive codes, consisting of precise quotes from the interviews (Swanson-Kauffman, 1986) were noted in the left margins of the transcripts. Interpretive codes, consisting of preanalytic remarks or reactions to the meaning of data, such as interpretations, leads, connections with other parts of the data, and puzzling exceptions, were noted in the right margins. The interpretive coding added meaning and clarity and also pointed to important themes and categories in the substantive coding (Miles & Huberman, 1994).

Level Two

In the second level of analysis, three questions were asked of each case: (1) is this woman at risk for falling? (2) is this woman physically vigorous, in transition, or frail, according to criteria outlined by Speechley and Tinetti (1991)? and lastly, (3) is this woman's FOF realistic or unrealistic?

Level Three

The case reports were then photocopied onto coloured paper, with one colour representing one participant. Using the coloured copies, each significant passage was cut out. Passages were then grouped into meaningful but tentative categories. Initially, these tentative categories consisted of nine file folders labelled with the nine research questions. However, the categories were refined as more data were collected and new meanings surfaced. Because each report had a predetermined colour-coding, participants' passages were easily identified, which ultimately facilitated an "across persons analysis". If one passage contained more than one code, photocopies were made of the passage and placed in the appropriate file folders. Once the files became thick, I carefully analyzed, sorted, and typed the data into meaningful subcategories (Morse & Field, 1995).

In this stage of the analysis, the aim was to give all data equal consideration. I elicited all types of occurrences, and gave special attention to obtaining variation of data, as the main priority was obtaining a complete full description of the phenomenon. When all the data had been collected, analyzed, and sorted, replication occurred; and as such, this replication signalled saturation of the categories (Morse & Field, 1995).

Level Four

In the fourth level of analysis, I began to search for logical patterns of relationship and meaning between and among categories (Corner, 1991). Miles and Huberman (1994) call this phase of the analysis "pattern coding". The analysis was concluded when a theme and patterns of interrelated categories, as well as unique happenings, differences and commonalities had been identified and summarized.

At this point, I went back into the field to confirm my findings with participants. I transcribed the second interviews verbatim and identified emerging ideas, concepts, and themes. The transcripts were then photocopied onto coloured paper. The case reports and second transcripts were colour-coded with multi-coloured felt pens to identify first and second visits. Each significant passage was cut out, sorted, and typed into new and existing subcategories.

Once all the data had been collected and analyzed, the case reports and second interviews were prepared into case studies. At the beginning of data analysis, case reports were presented in question format. Although Yin (1994) identifies this as an acceptable presentation of the data, the case reports were redesigned into case studies using the concepts identified for scrutiny during the literature review (e.g., falls, living alone, and FOF). In retrospect, a substantial amount of time would have been saved if reports were presented by category from the beginning.

Finally, I conducted a review of the literature on important concepts gleaned from the data. A conceptual framework was then described from an analysis of the "confirmed" findings, and then compared to three previously developed rival theories. The theory which provided relationships between the major theme and other findings was used as a template to present the research (Yin, 1994). The research findings were also used to show how the other two equally plausible, rival theories could not support the perceptions of the older women who lived alone with the FOF in this study.

Level Five

In the fifth and final level of analysis, the role of social support in maintaining independence and reducing uncertainty in relation to FOF is highlighted. Lastly, implications for nursing practice and recommendations for nursing research were determined from the analysis of findings.

Reliability and Validity: Trustworthiness

Just as researchers need to consider the validity and reliability of quantitative methods, an imperative exists for researchers to maintain rigorous standards when conducting qualitative research (Krefting, 1991; Morse, 1994a). I have chosen Lincoln and Guba's model (1985) of trustworthiness to demonstrate the reliability and validity of the present research. According to Lincoln and Guba (p. 290), the basic issue in relation to trustworthiness is: "How can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?" They posed four criteria that researchers should use to demonstrate their research is trustworthy: credibility (truth value), applicability (fittingness), consistency (auditability) and confirmability (neutrality). Below, the four criteria are considered in relation to the present research.

Credibility of Findings and Researcher

To establish credibility, Lincoln and Guba (1985) assert that one must prove confidence in the "truth" of the findings for participants and within the context that the research was carried out. In this study, credibility was established using four techniques: engaging in the field, observing in the field, triangulating, and checking with participants. In addition, social desirability, reflexivity, and credibility of the researcher were also considered. Each participant was visited twice in her own home over a period of seven months. During the visits, I established a rapport with participants, and an element of trust was established. With trust and the promise of confidentiality, the women shared intimate thoughts and feelings, some of which had never been shared with others. Participants were observed while I conducted interviews and completed structured instruments. Brief observations were preferable, as they did not violate the older women's privacy or unduly disrupt their everyday worlds.

Multiple methods of data collection increased the truth value of the findings. Using a combination of qualitative and quantitative data sources circumvented any personal biases (Kimchi, Polivka, & Stevenson, 1991). Further, triangulation made the data more believable, as it increased certainty in my interpretations of the study's findings. During the second interview, participants were asked to verify my interpretations of the data. All the women agreed with the major theme and other relevant research findings.

According to Brink (1987), one major problem when interviewing people is obtaining biased responses due to social desirability. To compensate for this bias, I used observation to examine the congruence between the verbal messages provided by participants and the body language they demonstrated. In addition, Brink suggests asking participants what others would think about the topic. If participants believe that the response would be identical, then social desirability may be in operation. In all four cases, participants believed that other women in similar situations would feel differently about their FOF. This disparateness provided evidence that the women's responses were not biased.

Reflexivity implies that the researcher is a part of the world being studied, and is affected by it (Boyle, 1994). It occurs when researchers interpret verbal expressions and behaviour of participants from their own perspectives and within the context of their own perspective (Clarke, 1990). In this study, reflexivity was incorporated into the research process. The strategy used for reflexivity was keeping a field journal of my relationships with participants. During the research process, I became aware that I was affected by the needs and expectations of participants, while at the same time, I had changed participants' understanding of living alone with the FOF. For example, one participant stated that by participating in the study, she was able to confront her FOF.

To establish my credibility as researcher, I completed the first interview under close supervision of an expert qualitative researcher. I also applied skills that I had learned from past experiences with audiotaping interviews. Furthermore, after ethical clearance was obtained, an older woman was interviewed for the purpose of testing the Interview Guide and my interviewing techniques. This interview was audiotaped and then transcribed verbatim. An expert in interviewing techniques analyzed and then critiqued the audiotape and transcript (see Appendix J). The expert's suggestions and the subsequent action I took helped to establish and support my credibility as an effective interviewer.

Applicability of Findings

The second issue is the fittingness or applicability of the overall findings. To establish applicability, Lincoln and Guba (1985) believe that one must determine the extent to which findings of the research have applicability in other contexts or with other participants. In this study, fittingness was verified in two ways. First, the research fit into the context of the study. To demonstrate this fit, numerous rich, thick descriptions were used in the presentation of findings. Second, the research findings were generalizable to theory. As stated previously, one cannot generalize from one case to another when conducting multiple-case studies (Yin, 1994). Notwithstanding, each case in this study followed a replication logic, in that similar results were obtained from each case. These research findings and the relationships between the categories were then explained using a developed theory. Because all four cases supported the same theory, replication occurred. Moreover, the research became even more potent when two equally plausible rival theories were not supported.

Selection Bias

The risk of selection bias, or more specifically, elite bias, in which only participants who are the most articulate or accessible are interviewed, is a potential threat to the fittingness of the research findings. In this study, participants were acquired through advertisements in a local seniors' newspaper and newsletter. This increased accessibility to women who were unable to leave their homes. In addition, all participants who met the selection criteria were asked to participate. Although I received seven responses, three participants were excluded from the study as they did not meet the selection criteria. Ultimately, the women in this study had a variety of experiences, backgrounds, and communication levels, which increased the fittingness of the research findings.

Consistency of Procedures

To establish consistency, Lincoln and Guba (1985) assert that one must determine whether the research findings could be repeated if the study were replicated with participants in the same context. In this study, consistency of the research procedures was verified in three ways. First, I returned to previously analyzed data after a period of two weeks to re-analyze and compare the results. Second, a thesis co-supervisor, who is experienced in qualitative research, independently analyzed the data to ensure that the results were accurate and reliable. Third, interviews were tape recorded and transcribed verbatim to provide an audit trail (Morse, 1994b). Tapes were stored in a locked cabinet for the duration of the entire study, and will not be erased until seven years after the study. Accurate and complete field notes, field journal, and memos were kept throughout the study.

Confirmability of Findings

The fourth issue is confirmability, which is a criterion for neutrality or freedom from bias (Yonge & Stewin, 1988). To determine confirmability, Lincoln and Guba (1985) state that one must establish the degree to which the findings of a study are determined by participants and conditions of the inquiry and not by the biases, motivations, interests, or perspectives of the researcher. In short, confirmability is achieved when credibility, auditability, and fittingness are established (Yonge & Stewin, 1988).

By completing a thorough review of the literature prior to the study, there was a risk that it could create limitations on the study or bias the study's findings. To prevent this bias from occurring, I distanced myself enough to formulate concepts of my own and to expand the work of others (Bogden & Biklen, 1992). I created this distance from the literature by reflexively immersing myself in the research data. Thus, I did not take the data at face value, but instead, considered the participant-observations, interviews, and other sources of data, so that a theme and patterns in the data could be identified (Boyle, 1994). The theme and patterns were then tested for validity by sharing them with participants, and then comparing the research data to the work of others. Conclusively, the research findings of this study were meaningful to participants, and with active participation of the women throughout the entire process, confirmability was achieved.

Trustworthiness of Research Instruments

To enhance the trustworthiness or rigor of the instruments used in this study, the instruments were evaluated and revised after ethical clearance had been obtained. Three reviewers who were experts in construction, refinement, and validation of questionnaires reviewed the AGF to determine whether the items represented all the dimensions known to increase the risk for falls, and were presented appropriately for elderly people. In addition, the Interview Guide was evaluated and revised by the same reviewers. The revised questionnaires were then pilot tested on one older women who lived alone.

Ethical Considerations

To ensure the protection of the participants' human rights, ethical clearance was granted, informed consents were sought, confidentiality was maintained, and other issues specific to the study were considered.

Consent Procedures and Forms

Ethical clearance for this study was provided by the Joint Ethics Review Committee of the Faculty of Nursing and University Hospitals on November 20, 1995. Participation was completely voluntary. Participants did not do so out of feelings of loyalty or obligation to me, as they made the initial appointments without knowing me personally. In one instance, a family member identified a relative as a potential participant, however, permission was obtained from the older woman before contact was made. In addition, no known cognitively incompetent individuals were included in this study (Good & Rodrigues-Fisher, 1993). Furthermore, participants were free to physically withdraw from the study, to withhold information from me, and to withdraw their data at any time. I was also careful that the rights of the older participants who were vulnerable (ie., dependent on health care providers) were protected, not only during the selection process but throughout the entire study.

The burdens of informed consent were considered. Thus, the informed consents for the interviews were read by the participants, read to participants (when requested), and signed at the beginning of the initial visits (see Appendix K). The Informed Consent Forms and the Introductory Letters for the interviews had been assessed at a grade seven to eight reading level to increase readability (see Appendix D). Each participant kept a copy of the Information Letter and Informed Consent Form.

As the specific direction and findings of this study were unknown, the informed consent was process oriented. Therefore, I reviewed the purpose of the study and the informed consent form at the beginning of each visit. In addition, questions about the study were answered and verbal consents were audiotaped at the beginning of second interviews.

To avoid the risk that participants might feel coerced, and to accommodate varying fatigue and comfort levels, I asked participants to determine the date and time for visits. Prior to each visit, I called the participant to confirm the visit. These steps ensured that participation was truly voluntary throughout the study.

Confidentiality and Anonymity

Although total anonymity could not be promised, as participants were known to me, they were however, guaranteed confidentiality. Only the thesis committee and I had access to the raw data (audiotapes, transcripts, and questionnaires). I transcribed the audiotapes in an environment that ensured confidentiality, and deleted any names and other identifying information while transcribing the data. Names of participants did not appear on any other data, and their identity was not shared with others. Instead, their interviews and other data were colour-coded and identified by number. A master list linking the numbers to names was kept in a locked filing cabinet, separate from the data. I also kept the consent forms and contact sheets in a locked filing cabinet.

At the completion of the study, I will retain the audiotapes and transcripts for a minimum of seven years in a locked filing cabinet for possible secondary analysis. Ethical clearance will be obtained prior to secondary analysis. I will keep the signed copies of the consent forms, the master list, and contact sheets for at least five years following completion of the study.

Participants were informed that parts of interviews may appear in the study's findings, and may be published in scholarly and/or other journals. However, the names of participants or any information that would link them to the statements would be omitted. Once the study was completed, participants were given a summary of the study.

Other Ethical Issues Specific to Study

Morse (1993) asserts that the researcher has an ethical responsibility to prevent and protect subjects from accidental falls. In this study, I advised participants when I discovered dangerous behaviours or found hazards in their homes that increased the risk for falling. Also, a safety pamphlet was given at the end of each initial interview.

One anticipated concern was that I might perceive that a participant required a walking aid to improve balance and prevent the risk for falls. In this case, the participant would have been given the Capital Health Authority Homecare Office telephone number. If the participant called this number, an intake worker would have assessed the participant's needs and recommended appropriate homecare services.

A second concern was that an older woman could realize how much FOF had inhibited her lifestyle and would want to receive treatment. As described previously, the participant would have been given the Capital Health Authority Homecare Office telephone number.

A third concern was that the respondent might have been forced to relive unpleasant experiences related to living alone or FOF. Further, I might have determined that the participant was suffering from depression or was excessively grieving the loss of a loved one. In these cases, the telephone number of the Mental Health Clinic would have been provided. Once the participant called and was assessed by an intake worker, an appointment would have been made with a therapist (psychogeriatric nurse) for individual counselling. A psychogeriatric nurse would also have been available to visit the elderly women in their homes. If necessary, the therapist would then have referred the participant to a psychiatrist or psychologist. These services were fully covered by the Alberta Health Care Insurance Plan and at no additional cost to the participant.

Lastly, if I had determined that a participant was socially isolated or would have simply benefitted from the company of other seniors, I would have provided the telephone number of the nearest seniors' groups, where participants could have obtained further information. However, none of the participants in this study required referral to a healthcare organization. One woman expressed interest in a seniors' group and I provided this information to her.

Risk Versus Benefits

Participants were told that there was little risk involved by taking part in this study. The interviews were held in the participants' homes, and they had ultimate control over the interviews (Ford & Reutter, 1990). In addition, the interviews had a therapeutic effect, as described in the literature (Ford & Reutter, 1990; Hutchinson, Wilson, & Skodol-Wilson, 1994). Two participants stated that the interviews provided an opportunity to share their experiences and feelings with me. Furthermore, by increasing their awareness to the potential hazards in their homes, their risk for falling may have decreased. However, the ultimate purpose of this research was to advance knowledge and enhance nursing practice, and this was made clear to participants.

Reflections on the Research Process

A multiple case study design using multiple methods was necessary to address the complex questions surrounding the phenomenon FOF. Data collection and sampling strategies were described and the issues of rigor and ethics were presented. The remainder of this thesis focuses on the analysis and interpretation of the research findings.

CHAPTER FOUR: CASE STUDIES

In this chapter, the data integrated from multiple data collection methods for each participant are presented as individual case studies. A description of each woman's situation is provided, followed by a brief outline of her health history, physical environment, and social environment. Next, the participant's perceptions of falls, fear of falling (FOF), independence, and living alone with a FOF are described. Three questions are then used to guide the interpretation of the case findings: (1) is the participant at risk for falling? (2) is the participant physically vigorous, in transition, or frail, according to criteria outlined by Speechley and Tinetti (1991) and lastly, (3) is the participant's FOF realistic or unrealistic, as outlined in the paradigm that emerged from the literature review?

Participant One

Participant One (PT1) had been living alone since her husband died 16 years ago, except for a five-month period in 1995 when she lived with her daughter after two serious, closely related falls. Following her recovery, she moved from her condominium into a seniors' complex. She stated that her daughter was instrumental in moving her into the seniors' apartment, although she preferred to live in her condominium:

> The family, they put me in here, I always tell them... it was their idea, not mine! I was quite happy to stay back where I was. And I never had any falls or anything since that, so I could have stayed there... but as far as I'm [concerned], I was just as safe there as I am here because I had more room to walk around, you know... [it was] twice as big as the living room, at least twice, and then I had a dining room too, a little dining room... I don't know, I don't like it [here] as well... but then living here is much more convenient for my daughter because I don't drive. So she can come and bring my groceries or help me go... you know, take me out...

Shortly after moving into the third floor seniors' apartment, PT1 became housebound because of her FOF. She was unable to use the stairs, and refused to use the elevators by herself. Thus, she never left her apartment unless accompanied by another individual, usually her daughter. In the initial interview, PT1 stated that she had put her name down for an apartment on the main floor:

> ... and then I can walk to the mailbox and walk to the laundry and walk around.

By the second interview five months later, PT1 had moved into an apartment on the main floor, however, she still did not want to live in the seniors' complex:

> Yah, well I never wanted to move here in the first place... But it's more convenient for my family... they didn't force me... [but] I certainly didn't want to move...

During the second interview, she confirmed that a larger place would be easier for her to get around:

> Oh, I think it could be more spacious than it is now... I think so... you'd just use the tables and things [to hang on]... but I can walk without [hanging on]... it's just that fear of falling!

Health History: Risks for Falling

Participant One was faced with various problems concerning her physical health, mental health, and behaviour. Several physical factors that increased her risk for falling included: advancing age, gender, perceived health status, chronic illness, disability, recent surgery, pain, vision problems, foot problems, and problems with gait and balance, as discussed below.

Participant One was an 86 year old woman who described her current health status as fair:

> ...'cause I'm rather handicapped with this arthritis... crippled up... Well, one of the girls at the therapy said I was fragile. I said, "me, fragile?"

She stated that she had two on-going/long term health problems: rheumatoid arthritis and osteoporosis. Her arthritis was also visibly apparent to me:

> ... she had a very severe case of kyphosis... She was unable to lift her head to an upright position... (field notes).

During the spring of 1995, PT1 had both cataracts removed. She stated that she no longer had problems with her vision, and that her eye glasses corrected her vision loss.

Participant One also reported that she was in pain daily, and that her arthritis was the main cause of her pain. As she rubbed her neck, she described her discomfort:

> ... it's awful, when I move my neck it grates and grinds and... no cartilage left I guess... my vertebrae are squished... squished...

She claimed that it did not bother her when she was sitting, only while moving around:

> ... nothing hurts when I sit. Not usually... it's when I have to get up and move around when it gets bad... but I can knit and it doesn't bother me.

During the first interview, PT1 also complained that her toe was very sore, and that she could hardly walk on it. She stated that a "soft corn" had been surgically removed, but was growing back again. At the second interview, I asked if she was still having problems with her feet:

> ...I wouldn't say it's getting better. No. I have to have that part of the toe cut off, you know. Have it ampu[tated]...

Additionally, PT1 reported that she had trouble keeping her balance when she got up out of a chair, although "not always", and she had trouble keeping her balance when walking around "the odd time". She was unsure what caused her lack of balance, but thought that it may have been caused by the serious fall she had about a year ago. She denied having dizzy spells, however, when I witnessed a near-fall in her home, she exclaimed:

> And I said I never got dizzy! (field notes)

Her mobility about the home was extremely slow and deliberate, and she shuffled her feet when she walked.

During the second visit, I noted that her mobility was worse than the previous visit:

> ... She stated that she was no better, but no worse than before... [but] when I was leaving, [PT1]... could not get herself out of the chair... She would get half-way out and then fall back into it. She stated that her arthritic knees had stiffened up... It took at least five attempts... (field notes)

Further, PT1 admitted that she could not get up once she had fallen:

> ... I know I can't [get up], my knees won't let me. 'Cause that's where the arthritis started, in my knees. Now it's in my back, making me look worse than I am. All humpy!

Participant One maintained her balance during mobilization using her cane and walker and by holding on to the furniture as well as permanent fixtures in her home (e.g., counter tops, walls). She explained:

> ... [I use] whatever I can grab onto that doesn't move... [and] I use my walker, I can go faster with the walker.

She also had a "reacher" to pick things up from the floor and take things out of the upper kitchen shelves. She complained, however, that her arthritic hands were not strong enough to use the reacher to grasp heavier items.

Participant One also required assistance when she went outdoors. She stated that she did not leave her apartment because of her FOF. During the second visit, I asked if she was able to go outside by herself, now that she had moved to the main floor:

> No I haven't gone outside because of my fear of falling!

As well, PT1 was at risk for falls due to several behavioral factors. For instance, she felt that she sometimes misjudged her ability to do things. In addition, she stated that she did things without asking for help or without planning them in advance. She also described herself as "impulsive and a procrastinator."

Further, several prescription medications increased her potential for falls. For example, PT1 stated that she was taking two types of analgesics for arthritis. In addition, she was also taking an antispasmodic for facial neuralgia. She also reported that she occasionally forgot to take her pills. During the second visit, PT1 admitted that she was unsure of the reason why she was taking one of her medications and had trouble locating it:

> ... this morning I thought I haven't seen my little bottle of pills that I think they're supposed to help me with your balance... I take it if I'm going out... if I remember! ... [I am taking the medication] when needed [because]... my daughter said that when I first... she noticed that I wasn't quite so... Oh, here it is! Eureka, I have found it!... [PT1 reads label] Lorazepam... Dissolve one tablet under tongue three times a day as needed. I should take one now, shouldn't I? Maybe I don't need it.

Although PT1 did not get daily exercise, she believed that she should exercise more:

> Yah [my activities have become closer to home]. Which isn't good, because you're not getting the exercise you'd get if you go out.

Participant One also admitted that although she slept well at night, she had nocturia, and that sometimes she had urinary frequency. She stated that she used her walker and had a night light in the hallway. However, she did not wear her glasses, as she felt that she did not need them.

In addition, PT1 complained that her house slippers were slippery. She was still wearing them, she explained, because her other shoes stuck to the carpet, and "have a tendency to trip you and want you to fall."

Several psychological factors also increased the participant's risk for falls. For instance, she admitted that she had frequent bouts of depression within the last year. Although she denied having bouts of anxiety, she revealed during the initial interview:

> ... when I go out, I get all tensed up, going to the car... or maybe before I go out... just before I go

> out, when I'm getting ready to go... I wonder what that is, I don't know. Very annoying anyway... I say to [my daughter], I wasn't like this before I started getting ready.

When I asked if her nervousness could be related to her FOF, she stated:

> Yeah. I think so. I think that blow I got in the [building downtown] because I can still see that floor coming up at me. The floor seemed to be coming up at me as I was falling. It was terrifying! ... I'll never forget that.

During the second interview, PT1 confirmed the cause of her anxiety before she went out:

> I think probably your fear of falling...

The participant's FOF increased her risk for future falls. She scored 57 out of a possible 80 points on the Fear of Falling Questionnaire (FFQ) by Dayhoff et al. (1994). As well, she reported that on a scale of 1 to 10, with 10 being extremely afraid of falling, her fear would be "over 6." When questioned further, she stated that she was unable to provide an exact number. Additionally, PT1 stated on different occasions that she wished there was a "cure" for FOF.

The Physical Environment

Several hazards for future falls were found in the participant's third floor apartment. First, clutter was found in the hallways which obstructed the pathways to the bathroom, bedroom, and living room area. Second, she admitted that she sometimes left spills on the floor rather than mopping them up right away. A third hazard identified by PT1 was that a light switch was hard to reach from her bed. Fourth, a large living room chair obstructed the main pathway to the bathroom and bedroom. A fifth hazard involved unsturdy kitchen chairs that easily tipped over.

The main floor apartment that she recently moved into had a very similar floor plan to the third floor apartment. The only difference was a door in the living room that lead to a patio outside (field notes).

Three hazards were also found in the environment surrounding her apartment. One hazard was the uneven surface enroute to the garbage dumpster. In addition, the dumpster was a long distance from the outside apartment door. As well, PT1 stated that the seasonal ice and snow were not removed promptly on week-ends. Another hazard involved two steps leading outside to the patio. She stated that she could not go out on the patio unless someone helped her up and down the two steps:

> Isn't that funny how I have such a f[ear of that step outside]... yah... you know, go out there and then you step down off, like there's a drop there by the... it doesn't go right out from the door. And then you go out and then there's another drop! They shouldn't have it like that. It might not bother many people but...

The Social Environment

Participant One had three children, two girls and a boy. However, her son died suddenly in his teenage years. One daughter, a recovering alcoholic, lived in eastern Canada, and the other daughter lived with her husband, just a few blocks away from the seniors' complex. They had grown children and both worked during the day. Her daughter called every morning, as she explained:

> [She's] probably [checking to see if I'm okay] and doesn't want me to know that... [she's] just checking, yah... I always say, she's checking to see, to see if I'm still alive!...

Participant One relied on her daughter for many of her needs. For instance, her main source of transportation was provided by her daughter. Due to her chronic arthritic condition, she was unable to use city transit. She also stated that she was unwilling to use DATS, the disabled transit system, as she had to wait too long for them to pick her up and reservations had to be made too far in advance.

In addition, PT1 relied on her daughter to buy groceries. When I asked if she went grocery shopping with her daughter, she stated:

> No, [my daughter] buys [my groceries] for me. Oh, I couldn't keep up to her speed. Her, she doesn't... you'd think somebody was chasing her...

Also, she was unable to take her garbage to the dumpster:

> My daughter wanted me to live here so she has to empty my garbage!... Or if a friend comes in...

While PT1 lived on the third floor of her apartment complex, she could not do her own laundry, which was located on the main floor:

> I make my daughter, or the girl that comes and cleans... Because I don't like the idea... I'm not sure of my balance to be on the elevator with a load of clothes!

Furthermore, she relied on her daughter to help her after she had fallen:

> ... I didn't bother phoning that thing [points to Life Call pendant]. I phoned my... daughter and son-in-law... because I knew they were home... it would be about the time that they were home from work. So they came over and helped me get up [laughs].

In the first interview, PT1 never mentioned a concern about being a burden to her family. However, in the second interview, I asked if this was something that she ever thought about:

> Oh, yah, I do [think about it]. I hate to be a burden to anybody. My, my daughter said I don't know... why you should feel that way. You know. Whether she just said that to make me feel better, I don't know...

Participant One also used several formal services in the community. She hired a housekeeper to clean her apartment once every two weeks. On occasion, the housekeeper also did laundry.

Further, PT1 visited a physician and a podiatrist regularly. As well, she received homecare services to assist with bathing. She also received physiotherapy, but stopped going just two weeks prior to our initial interview:

> They couldn't do anything more for me... the therapist said, you know, we can't do any more for you!... Why surely, it was [disappointing for me]. But... I said to

> my daughter... I don't feel that they're doing me any good... because I said to the therapist... well when my other therapist they did that and that and that. Oh, she said, [this place] hasn't got THAT kind of equipment.

Participant One maintained that she would not be afraid that no one would be there to help her if she fell and injured herself. She claimed that she would use "Life Call", a service she subscribed to for approximately five years. During the five years, she admitted that she had only used it once when she could not lift herself out of the bath tub, due to her "arthritic knees." Last year when she fell in her home a second time, she spent the night on the floor, because she did not use Life Call:

> Well, I mean, I didn't TRY to reach anybody... I didn't have my pendant on... you take it off in bed. You can't have it on. If you have it on in bed, you can activate it accidentally. So I keep it on the bedside table by my bed... No, I was quite happy [on the floor after I fell]. I said to myself, oh [my daughter will] come and save me.

Participant One admitted that she had great reservations about using Life Call:

> ... I don't want to call them every time I turn around... I don't know [why I don't like using Life Call]. 'Cause the only time I did call them, the Fire Department came, the Ambulance came. All I needed was somebody to help me out of the bathtub... I kept saying to myself, I'm not going to push that button. Finally I had to give in... I'm a very stubborn woman, that's all.

During the first visit, the participant attempted to demonstrate how Life Call worked; however, she was unsuccessful on the first few tries. She responded:

> That's not very good. I've only used this once before (field notes).

Perceptions of the Experience of Falls

Participant One had a history of falling. She had fallen at least four times within the past year. After her first serious fall in a downtown building, she fell several times in her home. However, she stated that she had not fallen during the five month period of time that elapsed between the first and second interview (field notes). When I asked the participant to describe her falls, she replied:

> [The previous falls I had] just happened... with me now... well, any falls I've had are all very sudden. ... and I have that fear of falling... I really do have.

She recounted some of the details of a fall that occurred three days following her fall downtown:

> Oh, and I had another [fall]... I never did [tell you]... it was a Sunday night. My daughter and her husband had been visiting me and they left, and I went to get ready for bed and I fell during the night and didn't wake up till... I came to sometime, I don't know how many hours after and there was dry blood and wet blood on my neck and in my hair and I wasn't thinking right. I thought well my daughter will come. I'll just lie here... I couldn't get up and there was a basket of laundry... and it was there and I reached over and made a pillow with it [laughs]... Well, [my daughter] always phoned me every morning... And then she called three times, and I could hear her on the answering machine, which wasn't close to me... "Mom, why don't you answer?" and then she phoned again and you could tell she was getting a little bit desperate. And then the third time she was hysterical. So she came over and she found me on the floor!... She let a scream out of her... "Mom! Mom!" ... and here I am lying on the floor! ... But the doctor said that the blow I got in the [building downtown] is what triggered that...

However, she was unable to recall the cause of the fall:

> Well, I don't know what I... I mean I was getting ready to go to bed. And I have no recollection of anything... whatever I struck, I don't know... and I don't know how long I lay, I was lying there.... I don't remember that day... I don't remember anything, about that [fall]...

After her fall, PT1 lived with her daughter and son-in-law for five months to recuperate from her two falls. Her daughter did not want her to return to her condominium, and subsequently found an apartment in the seniors' complex. It was just a few blocks away from her daughter's place, which enabled her daughter to assist her more readily with her needs.

Although her daughter had never discouraged her from living alone, she admitted that after her last two falls, her doctor had advised her not to live alone:

> ... [the physician] just saw me walking across the... and he turned to my daughter, my daughter was with me. He said, do you know, I don't think she should live alone. And then right away [my daughter]... course I think [my daughter] wanted me to live closer so she didn't have to carry the groceries so far [laughs]...

I asked the participant how she felt about the physician's comment, and she stated:

> Yeah, because I live alone here! So what?

Perceptions of the Fear of Falling

Participant One stated that she had been living with the FOF for approximately one year. In March of 1995, she and her sister were leaving a large downtown building when a man ran into her and grabbed the door handle out of her hand. According to PT1, she was thrown across the foyer and the left side of her face hit a large glass window. She was bruised, but felt that she was not seriously injured. However, since that fall, she had noticed that she had the FOF:

> No, I'm not sure [what triggered my fear of falling]... it must have been after that fall... [because] I really haven't felt the same since... you know I'm not confident...

During the second interview, PT1 appeared more certain that her FOF was triggered by a fall. However, as she explained below, she was unsure if it was just a coincidence:

> ... that's when [my fear of falling] really got worse. That's when I really started going down. I'm sure it is... because I was able to go and get on the bus and then, before that happened... I was tossed like a piece of paper... horrible thing to happen. So anyway, that's when [my fear of falling] started, from then on. Whether it was a coincidence, I don't know... [but my fear of falling] wasn't immediate. Not that day [I fell], for instance.

It was very obvious that the fall (which she also referred to as "the accident"), had devastated her, as she mentioned it numerous times during the contacts I had with her. She also admitted that she felt resentment towards the man who caused her to fall:

> Well, if I have any anger, it's at that man that knocked me down! 'Cause he was running from the law, I think. Well, I know nobody but nobody would... go tearing through, and knock anybody that was in his way... and I happened to be the one!

During the focussed interviews, I asked PT1 what the concept FOF meant to her. She explained:

> [the fear of falling is] terrifying... especially when you live alone... Well I think, well you fall and... if you can't get help, well there you are! ... And if you don't have somebody living with you... that's one of the reasons my fear of falling is that I think well how am I going to get up now? You know... what if I fall? What am I going to do?

When I asked her how she felt when she had the FOF she stated:

> ... it's not a very pleasant feeling... scary... as long as you've got something to grab on to... to steady yourself, you're alright.

In addition, her FOF was related to potential consequences of a future fall:

> ... the worst [consequence of a fall] would be a nursing home... you'd never want to be like that!

Participant One stated that she did not think about her FOF continually, and that she did not think about it as much in her home. Nonetheless, she admitted that she worried about falling during the night:

> Sometimes when I'm going to bed at night, I think, oh! I hope I don't fall when I get up in the night to go to the bathroom. You know... sometimes... once in a while.

She also stated that she thought about FOF outside her apartment:

> ... when I have to go to the elevator or something. I don't like the elevator anymore. I don't go unless somebody's with me... I wonder if I can get on in time before the doors close. But I used to go down on them before my "accident."

In the second interview, I asked PT1 if her FOF ever distracted her from what she was doing:

> No, I don't think I'm that bad!... Lots of times I forget what I'm going to do. I don't think it's from fear... and that's not in old age, either. Young people (too)... Because you start thinking about something else, and then you get at the top of the stairs, and you say, what am I doing here?

During the initial visit, however, I witnessed PT1 experiencing a near-fall, and I noted that she was distracted by her FOF at that time:

> ... when she moved from the counter to the fridge, she lost her balance. At that point, she made a quick move to grab onto the fridge door. The incident made her forget why she had gone to the fridge in the first place. It was obvious that she just wanted to quickly sit down in the nearest chair to regain her composure. The FOF had taken over her thoughts [distracted her] for that moment (field notes).

Participant One avoided the things she feared, such as going outside by herself and using the elevator or stairs. In addition, she used caution when she was mobilizing:

> ... I think [being cautious is] always on your mind. I think it would be, you know... I think it is. You know, when you're moving around, getting up...

When I asked if she had ever discussed her FOF with her daughter or a physician, she commented:

> Oh, [my daughter] knows I have a fear of falling... [but] have I talked... I just saw [the physician] last week! I don't know whether I've... mentioned it... maybe that's why he said I shouldn't live alone...

As well, PT1 had never discussed it with any other women. When I asked why she had not discussed her FOF with anyone, she explained:

> Well... like some of them say you should get out more. And I said well I don't... and, and they say, well WE go out... I said you don't lose... I lose my balance... But I said... you don't understand... they don't try to, but if they don't feel that way, you shouldn't feel that way. You don't bother with, I just, people like that, I can't be bothered with them anyway.

Perceptions of Independence

I asked PT1 what the term "independence" meant to her, and she revealed:

To be able to look after myself and do my own things!

She stated that she wanted to maintain her independence and continue living alone as long as possible:

> ... But I'm very happy that I can still live alone. I don't have to... just do what I like. Cook a meal when I want to and, you know... [I want to live alone] as long as I can.

However, she admitted that she was not completely independent at this time in her life:

> I like to be independent, to some degree... [but] I can't be absolutely, totally [independent]...

During the focussed interviews, PT1 described how her FOF negatively affected her independence. For instance, PT1 described the difficulties she had doing her own laundry, now that she had moved to the main floor:

> I did my own laundry for the first time this last week! That's when I found the laundry door is almost imp[ossible]... you know, it's too, it's terrible! And sometimes, it's propped open, but it wasn't... [I am able to open it myself] yah, with great difficulty!... I don't know why... they have it so... almost impossible to open? When I first went to open it, you know, I thought for a moment, it was locked! But then, you know, you haven't got the same strength... with arthritis...

Moreover, PT1 was unable to use the stairs if the fire alarm sounded:

> Not very well. A fireman would have to come and help. I don't know what they'd do about that. There was a fire drill one day, and I thought, to hell with you, I'm not going down there.

At the second interview, however, I asked if she was able to respond to a fire alarm since she had moved to the main floor:

Oh yah, I'd go out, it wouldn't be any problem...

In sum, PT1 was unable to do many activities in her home and outside due to her FOF. When I asked if she missed doing the things she used to do before she developed the FOF, she responded:

> Oh yeah, naturally [I miss doing the things I used to do]... (pause). But I'm not letting it get me down entirely. I just get cheesed off, fed up once in a while... I think that's normal... No ... if you let it get you down entirely, then... that's not very healthy!

Perceptions of Living Alone With the Fear of Falling

Participant One stated that she enjoyed doing activities in her home, such as watching television, knitting, painting, or drawing:

> ... you can always amuse yourself with something or other. Thank God for television! I never realized it would mean so much to me till this year.

However, she admitted that sometimes she felt confined in her home:

> Sometimes I get fed up living in senior's residence... I don't have the space I used to have... I feel closed in...

In addition, she was at increased risk for isolation, as she was only able to leave her home two to three times a week when accompanied by her daughter. Moreover, she spent most of her time alone in her apartment:

> And nobody checks on me. Just in the morning. You put your card out... I always tell them, so you know that I'm alive... But apart from that, you go all day and never see anybody...

I asked PT1 if being alone all day increased her FOF:

> I don't think it does. I suppose more exercise, get out more would be better for it... I don't know...

However, when I asked if recovery from a future fall while living alone would be difficult for her, she replied:

> Rather, Because you wouldn't feel as safe living alone. They'd be putting me over in the lodge... or a nursing home... How would I feel about that? Oh... I think that's the end of the line...

Furthermore, she described her concern about recovering from a future fall with the recent healthcare changes and cutbacks:

> ... now with the way, you know, they kick you out when you're, you know what I mean, the hospitals? The way they're treating the people now, it makes you think! Because at my time of life I'm more liable to need hospital care... So you think about it, whenever I read about these cutbacks and... it is a bit of a worry... And my daughter works. Now, would she have to give up her job?... and I think well, what would I do?

Participant One described her biggest fear as having to move into a seniors' lodge or nursing home:

> Can you imagine... getting in with somebody that... you didn't like, couldn't get along with... that wouldn't be very pleasant, but anyway, it may never come to that. Cause that's the end of the road... in the lodge... there are not [sic] facilities for cooking... I don't want that if I don't have to. Sometimes I think it would be alright if I had my dinner cooked for me, and then I think oh, no, I don't want that... I don't want to be that... when you go in to a nursing home, that's where you lose your... all your dignity and everything else. That's the end of the line. I hope I never have to do that, but who knows?... Who knows?... pulling up your roots, it's not very easy... you know...

Although PT1 received pleasure in being able to live alone, she was not completely happy at this time in her life, due to her FOF:

> ... oh, no, it isn't the kind of life that I would choose, you know, the way I have to live, 'cause I was quite happy until I had that fall, or that... bit of an accident, I guess you'd call it.

In many ways, her FOF had prevented her from going on with her life:

> I wish I was back where I used to be living, and doing what I want to do and go out and, you know...

Summary of the Case Findings

For a variety of reasons, PT1 was at great risk for falling in her home and outside. In addition, her FOF heightened her anxiety and decreased her confidence, placing her at greater risk for falling. By avoiding activities, her world became very small and isolated. She would not leave her tiny apartment without her daughter and was fully dependent on her for most of her needs. Although she had recently moved to the main floor of the seniors' complex, she was still housebound. She also admitted that she could not get up after she had fallen. Moreover, her safety was further jeopardized, as she had extreme reservations about using Life Call.

The participant's FOF was not constant. However, it placed her at greater risk for falling, as she focused on the FOF instead of the activity (i.e., the FOF acted as a distraction). Of equal concern was the fact that she did not realize her FOF distracted her. Furthermore, PT1 did not always know why she had fallen. She also felt that she could be seriously hurt and that she may need to be institutionalized if she fell.

Participant One was considered physically "frail", according to the criteria described by Speechley and Tinetti (1991). These criteria included: over age 80, balance and gait abnormalities, infrequent walking for exercise, decreased strength in shoulders, decreased strength in knees, lower extremity disability, depressed, taking sedatives, and lastly, near vision loss. Participant One also met one out of a possible four criteria for being physically vigorous: being cognitively intact. These qualities of frailty and vigor are outlined in Tables 1 and 2, and a summary of the results of the combined frail and vigorous qualities is presented in Table 3 at the end of this chapter.

In sum, the intensity of this participant's FOF and her self-imposed restrictions on activity were appropriate to her present capabilities and limitations.

Participant Two

Participant Two (PT2) had been living in a high rise apartment for eight years. For the first five years she lived in the apartment with her husband, however, he was placed in an auxiliary hospital three years ago after suffering several serious strokes. She had been living alone since that time.

During the first interview, PT2 stated that although she had fallen in her home and fractured her hip on two occasions, she was not afraid to leave her apartment and take the elevator to the main floor of the apartment complex. Nonetheless, she was unable to leave the complex, as she felt that the three exits were unsafe:

> You know... I think about me slipping... for instance we have a ramp there, and I'm very scared so I don't go up and down alone... we have two other exits... [but] that is not an exit, I think. Because I would have to go with my canes through, between the cars, so that is not acceptable...

Several weeks after our first interview, her husband passed away. Following his death, she sustained a third hip fracture from a fall in her home. During our second interview several months later, she stated that she was unable to leave her apartment because of her FOF:

> [My fear of falling] has increased!... that's why I don't even go, I could have rides, but I don't even want to, to walk down and get in a normal car... my son has a van, and that's very easy to get in. But even, he said, well, come over for a barbecue. I don't want to go! I don't, I'm scared that... I'll fall again...

Health History: Risks for Falling

Participant Two had several problems concerning physical health, mental health, and behaviour that increased her risk for falling. Numerous physical factors included: advancing age, gender, chronic illness, disabilities, recent surgery, and problems with balance and gait, as identified below.

Participant Two was an 82 year old woman, who described her current health status as good:

> ... I KNOW that I am healthy. Because this is not an illness, you know, my breaking of my hip, that is not an illness, that is a freak accident, but I mean, it hasn't made me sick... I am quite normal in everything... my body is doing what it ought to do, and I have no trouble with any of those things. I have a very regular life that way...

In spite of her perceptions of good health, PT2 had two serious on-going/long term health problems: atrial fibrillation and osteoporosis. Since 1979, PT2 had six total hip replacements/repairs. She had the last four surgeries within the past year.

Additionally, she stated that she was in pain daily and that it occurred while mobilizing. She described her pain as "sciatic" as well as "deep bone pain" in her hips. On a scale of 1 to 10, with 10 being the most severe, she rated her pain between 5.5 to 6. After her last surgery, she described her pain:

> I had a lot more pain... yah... maybe just the method they used, I don't know, but I had a lot more pain.

Participant Two complained that she had trouble keeping her balance when she was walking around. She felt that it could have been caused by "turning too quickly". She required assistance while mobilizing, and she normally used two canes while indoors. However, since her last surgery she had been forced to use a walker, which she disliked very much:

> ... I would like to discard the walker. Very much so... you stoop, if you don't think about it you stoop over... when I should be very straight, and you forget that sometimes... but it is much better for my back. No, I want to get rid of this [walker] very badly...

In addition to her canes, PT2 required the assistance of another individual when she left her apartment because of her FOF:

> I hold on for dear life to who ever it is... my son, holds my arm, you know. But, and other people will too... But I will the rest of my life, I'm sure I will have a cane.

She also disliked the idea of holding on to things other than her canes and walker while mobilizing:

> Oh, sometimes [I hang on to the walls and furniture], yah. Not as a rule. Because I think it's in a way, not right. Well, when I get up, I don't get up with this thing [points to walker]... [but] I... walk around with the two canes and that [walker], you know. And then the

> table, you know. Sometimes I do it for one reason or another, but not because I want to. I don't get up so I can hold on to the walls, no. I hold on to my canes and to [my walker]...

As well, PT2 was at risk for falls due to several behavioral factors. For instance, when I asked PT2 if she was forgetful at times, she stated emphatically:

> Ho! I'm telling you... very much so!

Further, she agreed that she did things in a rush, did more than one thing at a time, and without planning them in advance.

Participant Two was also taking several medications that increased her risk for falls. She required sleeping pills because she had been "an insomniac for years". Additionally, she was taking a cardiotonic to control the atrial fibrillation, an anticoagulant to prevent blood clots, an anxiolytic for anxiety, and an antidepressant for depression. She also reported that she forgot to take her pills occasionally.

During the first visit, Participant Two stated that she did not get daily exercise due to the advice of her physician. However, on the second visit she claimed that she practiced her rehabilitation exercises faithfully:

> I am asked to do [exercises] twice a day, but I do it three times a day. Yah, and then I walk with my cane. I walk as much as I can. Yesterday, I been walking like crazy. And, and when I got up this morning, ah... I was stiff and painful. As soon as you do your exercises, you limber up...

Participant Two also stated that although she slept well at night "with help" (using medication), she had nocturia. As well, she reported that she experienced urinary urgency. She admitted that although she used her canes at night, she did not use her glasses, even though she required them during the day.

Several psychological factors placed PT2 at risk for falling. For example, she stated that she had occasional bouts of anxiety and depression within the past year. In addition, PT2 revealed that she was deeply saddened and lonely because of the recent loss of her husband and a close friend.

Another psychological factor that greatly increased her risk for future falls was FOF. She scored 59 out of a possible 80 points on the FFQ. Further, she reported that on a scale of 1 to 10, with 10 being extremely afraid of falling, her fear would be "at least 7". She was unable to provide an exact number when I questioned her further.

The Physical Environment

Several hazards that increased the risk for falling were identified in the participant's apartment. Although her home was very spacious and elegant, I noted that a rug in the study (a main pathway to the bedroom) had curled edges that increased the potential for falls. Also, a bath mat on the bathroom floor was slippery from wear. Additionally, the night light in the bedroom left the hallway very dim. Lastly, a chair had been placed in the path between the kitchen and living room, which created an obstruction.

Two hazards were also found in the environment surrounding the participant's apartment. First, PT2 identified that the exits were unsafe, as they increased the potential for falls. Second, the participant stated that the front door of her apartment and the laundry door in the complex were potential risks:

> ... what bothers me, I cannot go to the laundry room because the door is so very heavy. And that [front] door is heavy too, and to get out and have the door fall against you, you know... Yah! Yah [I'm afraid it's going to knock me over]... and going to the laundry room, I don't dare to do that either, because it is such a heavy door...

The Social Environment

Participant Two had three sons. Two sons lived on the west coast and the youngest son lived in the same city as the participant. All her sons were married and had children.

She had a very strong support system as she described below:

> I have very, very good friends. When I can walk a bit better I can go [run my errands] with them. I have been able to go downtown, but not after my last experience with my thigh... And I don't want to be a burden, although I am! In many things. But [my family] never give me the feeling that I am. They bring me food off and on... [and] the church I belong to... [a] lady, she said, you cannot cook, you cannot be on your own. She got... all the people in church who knew me to cook for me. For three weeks, I had every day, at least three weeks, a warm meal. And a gourmet meal too. So people are awfully good...

Her youngest son also provided psychological support:

> My son... phones every night to see if I'm okay. He doesn't trust me anymore. But it is just the same nice... [and] he is coming every Wednesday... He said mom, I'd like to come over for dinner. Well, that was fine, you know. And he still, now he has holidays... but he still comes.

In addition, PT2 relied on her family and friends for transportation. She stopped driving her own car two years ago, and could not use city transit after her third hip operation. More recently, she relied on friends, family, and taxi services for transportation. She did not use DATS:

> ... and I don't want to use DATS because you have to wait an hour...

Although PT2 had a very strong support system, she expressed a sincere concern of becoming a burden to them:

> ... if I can get away with them not worrying about me, I'll take all the steps.... because I love them... And I don't want them to worry... and I don't want to be a burden, although I am!... in many things...

As a result of her fear of being a burden, she did not tell her children when she fell:

> Would you believe, when I fell the last time that I didn't tell my children... I was in the hospital, and I told the people not to say anything... [And my children said] well, of course we found out! But you should have told us right away!... I said, well you couldn't have helped me anyway... It happened twice that I fooled them.

In addition, she did not talk about her FOF with her family:

> ... I don't share this fear [of falling] with my children either. They might know it, but... No, I've never complained. No. I don't say I wish I could go, but I can't go because I'm so afraid to fall. No, I don't do that... then they would be more worried about it, I'm afraid...

Although her son had never discouraged her from living alone, she admitted that others had tried to convince her to move into a safer environment:

> Well, no there is no pressure because I won't accept it. But... my son... was somewhere, and those people know me, and this woman said, your mother should be in a... lodge... your mother should be there, and [my son] says, she's quite all right. She can look after herself... No, I still think she should be there together with other people...

To continue living alone, PT2 used several services in the community. For example, she had a housekeeper who cleaned her apartment every week and did laundry.

In addition, she received assistance from homecare. A nurse visited every second day to change the dressing on a pressure sore that developed during hospitalization. As well, a nursing attendant came every day to help her with activities of daily living:

> ... last week they changed the procedure... now [the nurse] comes every other day. Because.. the ointment has to sit undisturbed for a while. Yah... And I have every day, I have home care. A lady who helps me... she helps me with a bath and, and if I have trouble with, with my stockings and all that. She helps me with that. She makes my bed. She makes my breakfast. By the time I'm all dressed, you know, I'm out of breath, and I have to sit down for awhile. But uh, she is very nice too.

Participant Two visited an orthopedic surgeon regularly and had a family physician. She was also receiving physiotherapy, however, she was not happy with their services:

> But that physiotherapy was just the pits! ... you know, I am not impressed with the physiotherapy in [this city]... not at all.

Participant Two maintained that if she fell and injured herself, she would not be afraid that no one would be there to help her, as she had Life Call, a service she subscribed to for less than one year:

> No [I do not have a fear of falling because I live alone]. It doesn't affect me that way. No. I know I can get help anyway, from you know, my Life Line [sic].

She wore her Life Call pendant continuously:

> Yah [I wear my Life Call pendant in bed at night]. And in the bath tub. Always.

Perceptions of the Experience of Falls

Participant Two had a history of falling in her home. She fell three times and had one near-fall within the past year. She described a previous fall as unexpected:

> It was eleven o'clock at night, I was going to bed, I had locked the doors, turned out the lights... the light in the bedroom was on. But I got up, and I had a spontaneous fall. You know, I, we don't know if I broke my femur first or... the hip went out of the cup...

At that time PT2 had not subscribed to Life Call, and she was unable to get immediate help. Subsequently, she spent the night on the floor:

> So it was eleven o'clock and you cannot, you cannot talk or even scream, they can't hear you. I can make as much loud music as I want, a whole band here, and nobody will hear. So nobody could help me, and at that time, I did not have my [Life Call] alarm... I didn't have it. Because I said, oh, no, I don't need it. You know, we were talking about it. But anyway, I had a lot of pain, of course, but I did not get into a panic, I did not faint, I was as calm as can be. And I was figuring... I thought well, um... nobody can hear me. I'll try to hear the paper boy at 6 o'clock or 6:30. And see through the door, you can shout, because you know, there are openings in the door. And at 6 o'clock indeed he came, and I didn't know what time it was, but I thought, I had to listen. And I asked him for help. Help! And then he said what can I do? I said, well, I cannot get up and would you go to [number of another apartment]. There is a friend, and he will do anything he can. And he right away came, but he didn't have the key, and that door was locked. So then he went to the manager, and in five minutes, he was here with the key. And then from then on, 911, and then hospital.

However, PT2 stated that she used Life Call to signal for help after her last fall, although she could not remember using it:

> And the funny thing is I [used Life Call] alert... But I do not remember that uh... anything. I was absolutely conscious, but I did not remember that uh, that the ambulance came.

In addition, she was unable to recall the cause of her last fall:

> ... that was the 22nd of April in the evening, and I was sitting at my desk... [in the study], and I fell, but I don't know how I fell. I don't know why I fell. I didn't stand up, I didn't do anything, but I cannot tell you why I found myself on the floor.

Recovery from her last fall was severely impeded by a pressure sore that developed on her heel during hospitalization. During the interview, she expressed her anger:

> [I am] very upset still! When I think about it, that they never looked at it when I said that my heel was so sore. One of the nurses said, oh, we all know that. We'll put something under it, and they never looked. And I, after a couple of days, I said, it's very sore, will you have a look at it. They didn't. And then the day that I left, they saw it, and they said, Oh! Why didn't you tell us? I said I told ten, at least ten of you! Maybe the whole hospital knows about it. I said, but nobody ever looked. So I really, I'm angry about it... [and three months later] it's not healed yet! It's getting better. But it is an, it was quite a deep ulcer. You know, and I, every day, a nurse had to come. So imagine if they had taken care of it in the hospital, that would have been much cheaper for the whole system! Now I had to have a nurse every day to take care of this wound.

Perceptions of the Fear of Falling

Participant Two stated that she had been living with the FOF for approximately one year. The first time that she realized she had a FOF, she explained, was during a physiotherapy session:

> I think after I had my last operation... I was very, very scared. When I went to the Physio in Glenrose for the first day, I had a very nice physio... but I was so nervous and so scared and I saw those bars, and I think I'll never make it. And she told me later on, she said,

> you were just a basket case. I was so nervous, and that is, there is where my fear of falling started, I think...

During the second interview, she provided more details about what triggered her FOF:

> Yah. That had to do with those crutches, and of course, the fear of the first fall. But it had to do with the crutches, and I took a step and I thought it is not [the] right way I have my crutches, but [the physiotherapist] said that is the way it has to be! And then I stumbled and they grabbed me. But see that increased the fear!

I asked PT2 what the concept FOF meant to her, and she replied:

> ... if I fall, I think my life is over, now after all those troubles that I had. You know. I really think I won't be of any use to anybody, I will just be a hinder to everybody who knows me... then I'm so dependent on other people. So if I would fall and break again my bones, then I think I would not be good to [my husband], and I would be a burden to my children and probably a burden to the healthcare and all that...

She also added:

> ... I call it threshold phobia (telephone questionnaire)

In addition, I asked PT2 to clarify her response to the question, "If I fall, my life would change much", on the FFQ:

> ... I'm 82! What can you expect then? You know. If I hurt myself and I break... my hips and my legs, you know...

Participant Two also stated that she was "scared silly" of falling, and when I asked her how she felt when she had the FOF, she stated:

> ... well, I see myself sometimes falling ... I see myself falling flat on my face, and losing all my teeth. You know... and your stomach... it gets... butterflies, not even I think I have birds in there... it is terrifying. Absolutely! I get nauseated.

She even became fearful of falling when she was not doing anything that placed her at risk for falling:

> Yah, sometimes... when I don't do anything, when I'm

> sitting here, I say, "ho... what if I fall? What would happen? Maybe... you know, and then I think oh, maybe I would die... And when I'm in bed and I think about it. Sometimes I dream that I fall... when I fall [in my dreams], then I wake up, and then I'm very upset. And I think about it. Then oh!... It causes me to think about it great anxiety. I know it's in my head!! I know that!

She also reported that her FOF distracted her:

> You know, I mean, if I think of what I do, and not think about falling, it would be much better... Yes [my fear distracts me from doing what I am doing]... Right!

Additionally, her FOF was related to her fear of embarrassment:

> Oh, absolutely! [There is] great embarrassment [when I fall]... even when you are much younger you would fall on your knee or so, you are so ashamed, at least I was if I fell... oh, I think it's embarrassing.

Her FOF also emerged from the potential consequences of a future fall:

> ... and then I think the worst... if I fall again, my life is over... I think I would give up... so far I haven't... it would be so devastating if I fell again... and I don't think that I would have the courage to do what I always have done...

Participant Two stated that she thought about her FOF continuously:

> ... I think [my fear of falling is] constant. When I think about it, yah, I'm scared...

In addition, she admitted that she was very cautious in her home:

> ... at night I go to the bath room with the walker and I always have a little light on. Yah, I'm careful, because I don't want stumbling. I, you know, even to scare myself. I hate to stumble, so I have the doors open, a particular opening, not big and not small. And I have one door that leads to the... storage room, and if you don't close the door real good that it locks, then if you touch it, it will open. And for my husband's sake, I always, everyday, checked the door that it was locked. That he couldn't fall. And I do the same for myself now.

Participant Two avoided the things she feared, such as going outside by herself:

> I make a decision not to go [out]... I would like to go off the side walk, into the street, across the street... don't dare to do it! ... I don't go to the bank, which is very close by... I don't dare to go. I have to cross the street!... [and] we have a ramp there [at the front entrance], and I'm very scared so I don't go up and down it alone.

During the second interview, she reported that she restricted her activity even more; however, she described her FOF as less intense:

> But I don't go anywhere... I DON'T go anywhere period... no I don't [leave my apartment anymore]. And that's one of the preventions, I think... [but it's] not so intense, I think...

When I asked how she tried to resolve her FOF, she exclaimed:

> ... I tell myself, don't be so stupid! You can do it! And I do it too! But why should I hesitate and stand there, shall I do it?...

Participant Two stated that she tried not to think about her FOF:

> I do my best not to think too much about [my FOF]... I don't dwell on it... but I don't think it's... healthy to dwell on those things... that don't happen yet...

As well, PT2 also found that by talking about her FOF with me helped to confront her fear:

> But at the same time, you help me, because I confront now why [I have a FOF]. You know. Yah, that helps. Because I have to confront my fears now... Because you know, it makes sense for me too...

Moreover, she tried to think positively about the future. For instance, she "strongly disagreed" with the statement, "It is likely that I will fall in the next month" on the FFQ. She also expressed hope in both interviews:

> ... My future plans are to walk, take my walks, and do some exercises... but my future plans are to live the life I used to live. Yah. Independent. That's what I hope very, very much.
>
> But I also think... every day it gets a little bit better... yah... that is the power of positive thinking...

Participant Two's spiritual beliefs were strongly related to her perceptions of safety and security:

> ... Because I feel that I am not alone. I feel that my faith helps me a lot. I feel always that I can talk to my Lord, I can talk to Jesus. I said, Jesus please be with me, don't leave me alone! You know. Sometimes when I feel that... I am anxious, I say, oh, please do help me! And it calms me down. Yah, it does help.

Perceptions of Independence

I asked PT2 what the term "independence" meant to her, and she explained:

> That means to me that I do not want always advise from everybody. You know, that's why I said to my friend. No, I, I, no don't, don't... and other people, oh you should do this, you should have a wheel chair. I said I should not have a wheel chair, and I should not have to listen to those things. I said, please don't mention it again.

Although PT2 knew that she was dependent on her family in many ways, she struggled to maintain her independence:

> [I am so afraid of] being dependent, and all my life I have been an independent person. Yah... that is... I hope that I can maintain that until the day I die...

During the focussed interviews, PT2 described how her FOF negatively affected her independence. For instance, she had become completely housebound because of her FOF. Additionally, she was unable to bathe without assistance, grocery shop, take out her garbage, or do laundry. Moreover, she did not respond to the fire alarm:

> ... we have fire alarms and then if we don't smell anything we stay here... all the ladies [on this floor] stay here... No, no, no [I do not go down when the fire alarm sounds]... If it was really dangerous, but it takes an hour and a half to burn the door!

In sum, PT2 was unable to do many activities in her home and outside due to her FOF. When I asked if she missed doing the things she used to do before she developed the FOF, she responded:

> [I miss] my activities that I... used to do, chose my clothes, chose my groceries... You know... that sort of thing I would like to do...

However, she also added:

> [but] if we let ourselves be cocooned, in every aspect, also myself here now, then you lose the battle, I think. You have to fight. And I like to fight. Yah.

Perceptions of Living Alone With the Fear of Falling

Because PT2 was housebound due to her FOF, she centred her activities on solitary activities in her home:

> ... I like to play discs. You know, music... [I don't like watching television] no, not at all.. it's wasting my time. I could read in the meantime. I have about two to three books going, you know...

She stated that she did not find her apartment confining:

> ... I don't feel confined here at all... and I don't hate my own company.

I asked PT2 what her home meant to her, since her FOF had come into her life, and she replied:

> ... when you have been in a hospital for awhile, then some people do not feel at home in their home right away. The walls are too wide. They said [they missed] the comfort of being cared for... I came home and I sat in this chair, and I looked outside, and I could cry I was so happy! My home means a lot to me. My home is not a house, my home is a home... that I can live here, I am very grateful for that... [it's] very important for me to have my own environment...

She also felt that she would not feel safer if she did not live alone:

> Living alone has no effect [on my FOF] because if you fall you fall, you know. And my husband couldn't help me anyway. If ... he sits here, and I fall there, he can get me up, but for the rest I'm still falling.

However, PT2 felt that recovery from a fall while living alone would be difficult for her:

> It would be so devastating if I fell again... How many chances do you have in your life to do that [recover successfully]? ... I think I would give up... And so far I haven't, you know.

Participant Two was greatly opposed to the idea of moving out of her apartment:

> [the idea of moving to a lodge] frightens the daylights out of me. Because I'm... I'm a very private person... Ohhh... yes, that will be the end [having to move to a

> lodge]. It will be the end. Yah... for me it will be the end. I hope I can stay here until I move to heaven...

Furthermore, she would not move into her children's home:

> Never [would I move in with my children]. They need their own lives... awful things do happen when they take their parents in... you can't help it but you might interfere, you might say well, why, what are you do that or why are you going to do that? You know, you might interfere, and I am deadly afraid of that.

Although PT2 enjoyed living alone, she was at increased risk for isolation. Additionally, she was not completely happy with the way things were:

> Because it was really terrible to break the other hip. You know, I've been an invalid since the 5th of April, 1995. And uh, it doesn't suit me very well... I feel crippled.

Her hope for the future, which during the first interview held promise, had become less positive, less uncertain, but perhaps more realistic in the second interview:

> Hope for the future... I mean, the future is very, very small... My future is, is, I don't have to think about long, long range future. Because I am too old to worry about the future actually...

Summary of the Case Findings

Participant Two was at great risk for falling for many reasons related to her physical health and mental health. As well, she did things under potentially unsafe conditions that increased her risk for falling.

In addition, she had an extreme FOF that was of great concern to her. She worried about it continuously, even while resting and sleeping. Moreover, she avoided activities which heightened her fear, and thus she was confined to her apartment. She admitted in the first interview that her fear was "not rational", and she told herself "not to be so stupid". Further, she stated that the FOF actually distracted her from what she was doing. Conclusively, her FOF decreased her self-confidence and placed her at greater risk for future falls.

Participant Two was considered physically "in transition" according to the criteria established by Speechley and Tinetti (1991). She met seven out of a possible nine criteria for being physically frail. These criteria included: over age 80, balance and gait abnormalities, infrequent walking for exercise, lower extremity disability, depressed, taking sedatives, and near vision loss. Participant Two also met two out of a possible four criteria for being physically vigorous: cognitively intact and frequent physical exercise other than walking. These qualities of frailty and vigor are outlined in Tables 1 and 2, and a summary of the results of the combined frail and vigorous qualities is presented in Table 3 at the end of this chapter.

In sum, although the participant's FOF was realistic during activity, due to her great risk for falling, it was not rational for her to think about FOF with such extreme intensity. During the first interview, it appeared that FOF had taken control of her thoughts, and hence, her life. However, in the last interview, PT2 stated that it was less intense.

Participant Three

Participant Three (PT3) had been living alone since her husband died of a stroke 41 years ago. For the past 16 years, she had been living in an apartment in a seniors' complex. During the first interview, PT3 stated that she had fallen so many times, that she could not remember the exact number. Although she maintained that she was very independent and did most things by herself, she was very concerned about falling:

> Well, if I fall, I might hurt myself and I can't look after myself. Who's going to look after me?... I don't have the help [I need to recover from any injury due to a fall]...

Health History: Risks for Falling

Participant Three was an 88 year old woman who had several problems concerning her physical health, mental health, and behaviour that increased her risk for falling. Several physical factors included: advancing age, gender, chronic illness, disabilities, recent surgery, vision loss, and problems with gait and balance, as described below.

During the initial interview, PT3 described her health status as good. However, at the second interview, she reported:

> Well, my health was good when I had my hip operated on: That's been ten years ago, honey... now, I haven't felt good since I... since my nerves got [bad]...

She stated that she had numerous chronic health problems, such as, arthritis in her shoulders, arms, and knees, high blood pressure, osteoporosis, stomach "problems", a chronic cough, and constipation. In addition, she was very hard of hearing. She had worn a hearing aid in both ears for 13 years. Moreover, PT3 reported that she had problems with dizziness, although she did not know what caused it:

> I don't know what causes the dizziness, to tell you the truth. It's just, one of those things, I guess...

Participant Three also complained of occasional arthritic pain in her shoulders, arms, and knees. She was unable to identify the intensity of her pain; however, she stated that the pain was worse during mobilization.

As well, PT3 explained that she had retinal surgery one year ago. She also needed cataract surgery on her other eye. Additionally, she stated that shortly after her hip surgery ten years ago, the orthopedic surgeon warned her:

> ... so when [the surgeon] operated, he said, now be careful. Don't do anything out of the ordinary... the hip went worse so quick that I couldn't get that stem in there as long as I would have liked to have.

Participant Three also reported that her leg was one-half inch longer than the other because of the total hip replacement. The difference in length, she explained, resulted in several falls:

> ... I [don't] lift this leg [high] enough. Because what did [the surgeon] do? He made that [right] leg half an inch longer than the other one. And that toe, I just don't lift it up high enough.

Participant Three also complained that she had difficulty keeping her balance when she got up in the morning because of back aches, and she had difficulty in getting out of a chair due to "bad knees". She also stated that she had trouble keeping her balance when she was walking around. When I asked what her lack of balance was caused by, she remarked: "You tell me!"

As well, PT3 admitted that she had difficulty lifting herself up from the floor:

> If I got on the floor, I'd have trouble getting up... one time I was cleaning the cupboard out and I thought I'd never get up. But if I'd only thought to turn over and crawl on my knees to a chair I would have been all right... [but] you don't think of those things when you should think of them.

She also described how she could not get up once she had fallen:

> And then one time I was hurrying in, catching the elevator, and I had a pair of new overshoes and that rubber caught on there and down I went... I said well, what a silly thing to do. And try and get up! Well, [another lady] got me up, but I didn't have nothing to hang on to, or nothing, you know... she grabbed my arm and she got me up anyway. And I got up on my knees and I then I was able to put one foot up and help myself.

Participant Three stated that she did not use her cane while mobilizing in her home, but instead, hung on to the furniture.

> ... when I feel like I'm going to fall I do [hang on to furniture]... There aren't many places I can go [in here] without grabbing on to something... I do when I feel funny.

Participant Three reported that while outdoors, she did not need to be accompanied by another person if she used her cane. Nonetheless, she explained that she always relied on her cane, even when she was in the company of others:

> ... I didn't have my cane when I had this terrible fall, because I had my two sons... I thought, well I've got two sons' arms to hang on to... when one gets tired of me, I'll hang on to the other one... so I didn't take my cane. If I'd had my cane, but I never go without it now. Because that cane reminds me that I'm to be careful...

Several behavioral factors placed PT3 at risk for future falls. For example, she admitted that she was very forgetful:

> If I don't put it on the calendar, I forget...

She also agreed that she did things in a rush, tried to do more than one thing at a time, and did things without planning them in advance. Further, she stated that she sometimes forced herself to do things when she was overtired. In addition, I noted her impulsiveness during the initial interview:

> I could not help but notice [PT3's] impulsive behaviour during the visit. Without warning, she would dash out of her chair... she always forgot that she was attached to a microphone... [and] there was never enough time to disconnect the microphone from her shirt before she was out of reach... (field notes)

Additionally, several medications increased her potential for falls. She had been prescribed a diuretic and antihypertensive for high blood pressure, an antitussive with codeine for a chronic cough, and medication to control dizziness. She also reported that she occasionally forgot to take her medication.

As well, PT3 claimed that she did not sleep well at night. She had trouble getting to sleep and complained that it "happens too often." In addition, she had nocturia three or four times per night. She stated that when she got up during the night, she did not use the hallway light, as there was enough light shining through her bedroom window to light the hallway. She also stated that she did not need to use her eye glasses, even though her vision was very poor.

I noted that the shoes she wore at both interviews (slip-ons with a one-inch heel) increased her risk for potential falls (field notes). Further, PT3 stated that although she exercised daily, she did not walk very much.

Several psychological factors placed PT3 at risk for future falls. For instance, she was under a great deal of stress due to a lack of family involvement and support in her life. She also admitted that she occasionally felt lonely, isolated from her family and friends, and depressed. The reason why she felt isolated, she explained, was that:

> Nobody can talk to you when you can't hear. So they can't be bothered. So this is why I sit here.

She stated that she also had occasional bouts of anxiety, and that she often experienced uncertainty about the future:

> Well, naturally, you wonder what's going to happen next. You can't help but have that on your mind. I go to bed at night and I think well, am I going to wake up in the morning or am I not?

As well, PT3 reported that she had a FOF. She explained that it varied from time to time, and that she was unable to rate her FOF on a scale of 1 to 10. However, she scored 50 out of a possible 80 points on the FFQ, and in our first telephone conversation she asked:

> Yah, what can I do about that [fear of falling]? How can I get rid of it?

The Physical Environment

The participant's apartment was very small and crowded. Because of the lack of space, two kitchen chairs obstructed the main pathway between the living room and hallway. In addition, she had placed several rugs over the wall-to-wall carpet, and their borders created ridges that posed a hazard for falls. She also reported that she lowered the temperature in her apartment to 60 degrees fahrenheit during the night. As a result, she complained that her hands would get so cold that she thought about wearing mittens to bed.

I assessed the outside area of the participant's apartment but did not discover any physical hazards. However, I noted that the temperature in the hallway leading to her apartment was very cold.

The Social Environment

Participant Three had three sons. Her youngest son lived on the east coast, while her oldest son lived in the same city not far from her residence. Her middle son passed away at an early age. She stated that she did not receive any support from her friends, and although she received some physical support from her family, the dissention between them hindered their social relationship. In addition, they tried to discourage her from living alone:

> [My daughter-in-law] said to me the other day, she says, I think it's time you went in the lodge... But I said to her, as far as the rest of it, I'm not ready to go there. So then my son said, oh, to help her out, you know? Maybe you should plan to go. I said there's too much planning for me to think of going into the lodge... see if I was in the lodge, my son wouldn't have to do so much for me. He used to come and get my groceries, but since she said this, I go down and get my groceries and I take a taxi home... but it hurts me because why does she want to shove me into a home, a nursing, a lodge, if I don't have to go? And over at the lodge, I'd be bored sick, if I... didn't have something to do... but I don't know why she's this way.

Additionally, her son and his wife had serious chronic illnesses, and thus, were unable to meet many of her physical needs:

> I hate to bother my son... because he's got diabetes. He has one foot that's kind of gone numb on him. Now he's got a bad muscle in the eye, and I just don't want to ask him. God bless him, he's going through enough with [his wife] being, having cancer. And uh... I just don't ask him, unless I absolutely have to...

Subsequently, PT3 stated:

> I generally go everywhere by myself...

Additionally, she relied on several services in the community. For instance, she visited a podiatrist and physician regularly. As well, she received assistance from a homecare attendant to assist with bathing. She recalled the incident that motivated her to seek help:

> Oh, well this is kind of crazy... I have a bath mat, and I always pull it up to [the tub] so I don't slip. But I didn't do this at first. I had another one there that wasn't as good. You know, it was an old one, but I thought, well it fills the gap and keeps me from getting on the ... linoleum... so anyway I was drying myself and I guess I bent over to dry my legs, or something... and when I bent down, my feet went out underneath me and I went backwards in the tub. And if I hadn't of seen the pole thing sitting there and grabbed it, I'd have hit my head on the back of the tub... It could have knocked me senseless and maybe killed me right there. So I was scared to get in the tub after that. So I asked if I could have someone to come and help me. They said, sure you can. So she sent one, and I have been having her ever since...

Participant Three also stated that although her son sometimes drove her to doctor's appointments, she relied mainly on the city transit system. She did not use DATS or taxi services, she explained, because:

> [DATS] are an awful bunch to get a hold of.. I don't think they're doing quite right with us seniors... [and] I don't take a taxi... I feel they're too darn expensive...

Further, PT3 claimed that if she fell and injured herself, she would not be afraid that no one would be there to help her. She stated that she would signal for help using Life-Call, a service she had subscribed to for approximately three years. In addition, she explained:

> We put a card outside the door. We're supposed to have it out there by 9 o'clock. If we don't have it out, they knock on the door...

Perceptions of the Experience of Falls

Participant Three stated that she had fallen in her home and outside:

> Well, I've fallen several times after I had my hip done, you see. I fell between [the hallway and the kitchen table]... And it's a wonder I didn't knock myself out, you know!... And I fell once in the hall, and I fell downstairs twice coming in the door from outside. And uh... one time I went out to the car and a

> friend was with me, and I fell, fell between the cars and I thought, well, gee whiz! And then this last fall I had, not last fall, yah, I guess it was the last fall, no I fell another time. Oh I've fallen so MANY times... the last time [I fell] on the cement. Oh, brother! Like a ton of bricks!

When I asked what caused her falls, she initially responded: "You tell me!" However, over the course of the interviews, she concluded that some of her falls resulted from one leg being shorter than the other. Additionally, she reported that she could anticipate future falls, which enabled her to prevent or prepare for them:

> Mind you I've stumbled num[erous times]... but I'm getting to the stage where I can catch myself now. I stumble with this toe, you see, with this foot being a little bit longer. Well, when I feel myself going, I'd throw myself to this [left] side, you know...

However, she could not prevent all falls, and she suffered immensely from their physical consequences:

> ... and I went to the clinic down here to get an x-ray right away. I said I'm sure I broke every rib in my body. They said, no you didn't break them, but you sure bruised them... they've been so sore. It's just recently that it's kind of disappearing. But that's three years ago!

Perceptions of the Fear of Falling

Participant Three reported that she had been living with the FOF since her hip operation ten years ago. However, she believed that her FOF became worse following a fall in her bath tub and intensified even more after she had eye surgery one year ago:

> And I've had the fear of falling more, really... since I had this eye done. When I'm on the streets. Because the streets are not level. I know I've stubbed my toe different times on it. And of course, I can't see it... and it's making me get my neck to the front and I don't like that... I'm bending over making sure that I know where I'm stepping, you know? And that bothers me...

During the initial interview, I asked PT3 what the phenomenon FOF meant to her. She explained:

> [Losing my independence]... that's the whole thing in a nut shell...

Participant Three also stated that when she fell, she was "scared to death". I asked her how she felt when she had the FOF, and she replied:

> Well it just hits me here in the stomach [PT3 rubs stomach area]. That's my nervous part. That's all ... it pains... Worse than butterflies. No, I get a pain right in the stomach when I feel fear of something... [and] I try to find something to hang on to, or do something.

In addition, her FOF was related to potential consequences of a future fall:

> ... [if I fell] I would have to go into a [nursing] home! ... and the nursing homes I've seen... I hope and pray to God I never have to go in [one]...

During the first interview, PT3 stated that she thought about her FOF continuously:

> It just keeps me alert. It keeps me alert and keeps me watching... [It is] one of the things I worry about. But I am very, very careful, I admit. In the building, you know what I mean?... But as I say, I don't always think about it, but I do. It's there, and it's there all the time. Now watch when you step out of the elevator. Now I've never seen that elevator that it didn't go just so... [PT3 indicates with hands that elevator always stops level with the floor]. It's fine. But there could be a day that it wouldn't be fine, and I'd trip. You know? So I think about it. It's on my mind all the time. Yes.

In the second interview, she added:

> ... but if you get that [fear of falling] right out of your mind, you're gonna fall. That's what I think. 'Cause you're going to be careless. No, I think of it, and I take precautions...

To control her fear, she became familiar with the environment:

> Yes, well, I'm very careful when I walk around here...[in my apartment] I keep things out in the [open]... where I know what they are. But outside my home, I don't know... I know that rug's over there. I know that this [throw rug] is here [in the hallway], and I know that I have a rug by my bed... so I just know where the things are and I'm just careful...

Additionally, she described her FOF as more intense outside her apartment:

> But I'm worse outside... I kind of worry about it on the streets. The streets are not very smooth, you know, at times. And I have this, since I had my eye done, I have to look real close.

Participant Three avoided the things she feared, such as going outside by herself when the streets were icy:

> Well... in the winter time, when it was icy, no [I don't go outside]... I used to take a chance because I had good overshoes you know, but uh... no, since I got older, I don't go out much in the winter time...

Further, she used her cane to maintain her balance while she was outside:

> I've been so careful... I make sure I got my cane, and if I forget it, I come back upstairs and I get it.

Participant Three's spiritual beliefs were strongly related to her perceptions of safety and security:

> I said, dear Lord, take me there safe and sound. He does, He did... He's the only one that'll help me... He's helping, He certainly is... I ask Him to protect me when I'm going out that I don't fall anymore...

Additionally, she relied on superstitious beliefs to keep her safe:

> No [I haven't fallen recently]... Let me touch wood... hoping is right!... well around the house... I haven't fallen for... touch wood [PT3 touches wood].. for quite a while. So I hope I don't!

When I asked if she had ever discussed her FOF with her family, she commented:

> Well, [my family] know that I'm, that I'm off balance. And I generally, when my son is with me, I always grab his arm... even if I've got my cane, it doesn't matter. But uh... he said [having one foot longer than the other] shouldn't make any difference sending you off balance. I said, you try it! Walk with one shoe on and one shoe off will tell you little bit... [but] no, he doesn't think the same... he doesn't [understand].

Additionally, she could not remember if she talked with her physician about her FOF:

> Uh, I can't remember... it seems to me I have [talked to my physician about my fear of falling]... I can't remember.

Perceptions of Independence

I asked PT3 what the term "independence" meant to her, and she explained:

> I've been independent since I was a kid, because I had no mother, and my dad was working all the time. You know, and I had to be independent and look after myself as much as I could... I had a hard life... a hard life... [and] now that I'm living alone... I... thank the Lord I have enough to live on... I'm not rich by any means, but I'm very careful what I buy. It does me for a long while... I like to pay my own way... and [I like] going for my groceries. I hate to bother my son.

She also reported that she did things without asking for help, and she tried to remain independent, even when she was ill:

> Oh, heavens... that's my independence... too much so. I'm awful that way. I've been told that all of my life!

Additionally, she struggled to maintain her independence as long as possible:

> When I wake in the morning, up in the morning, I'll say thank you dear Lord for making me get up and look after myself.

Perceptions of Living Alone with the Fear of Falling

During the initial interview, PT3 stated that she felt comfortable in her home:

> ... when I come in this door, and shut the door, it's home, and thank God it's home to me... and that's what I said to that girl when I phoned about the lodge. I said, "please honey, this is home to me..."

In the second interview, however, she described her home differently:

> And I don't go downstairs and walk around too much because I can't hear, and they're jabbering so fast that it just about drives me crazy. So I come crawling back... hole I call it, and stay here.

Although she felt removed from everyone and everything at times, she did not want to be a burden to others:

> Well, yes... I do feel confined in my home... [but] I don't know whether I could have somebody... around me all the time. I think it would bother me too. Because I would feel I was... I feel maybe in the way. It should be time for me to go on... [and] as far as living with

> my children, I wouldn't. Because now with my daughter-in-law the way she is...

Participant Three described her biggest fear as becoming dependent on others and having to move into a nursing home:

> If I'm going to die, let me die, please. Don't keep me alive for nothing. I don't want to be kept alive... I don't want to lay there and be poked with a needle and have food shoved down my throat that I can't even swallow! Oh dear, that's just terrible!... that's what they [do] in a nursing home...

She did not feel as strongly about moving into a seniors' lodge; however, she still expressed some reservations:

> ... if I get tired and I sit here and I think, oh, what's the use of living? And I don't know what to do. Wish I could do something. Get up and... do something! So I do, and I forget all about it. If I get over in the lodge, I won't be able to do that. And if I did, what would I do then?

In many ways, PT3 was not happy at this time of her life:

> Well, I've been forty-one years alone. And it gets pretty lonely, yes... [and] it gets, it gets monotonous...

Summary of the Case Findings

Participant Three was at risk for falling. Although she described her FOF as constant, she did not have an intense FOF. She had learned to live with her FOF on a daily basis, however, her FOF was heightened by an uncertain future.

According to the criteria described by Speechley and Tinetti (1991), Participant Three was considered physically "frail". She met seven of a possible nine criteria for being physically frail, which included: over age 80, balance and gait abnormalities, decreased strength in shoulders, decreased strength in knees, lower extremity disability, depressed, and near vision loss. Participant Three also met one of a possible four criteria for being physically vigorous, which was: cognitively intact. These qualities of frailty and vigor are outlined in Tables 1 and 2, and a summary of the results of the combined frail and vigorous qualities is presented in Table 3 at the end of this chapter.

In sum, the intensity of this participant's FOF and her self-imposed restrictions on activity were appropriate to her present capabilities.

Participant Four

Participant Four (PT4) stated that she had been "flying solo" for over 27 years. She lived in an apartment in a seniors' complex for the past ten years. She moved to this city to be closer to her children. "It was the best place for me to go...," she commented in our initial interview.

Participant Four had been diagnosed with glaucoma 13 years ago. She explained that at that time, a procedure had been done to correct the glaucoma; however, it was performed incorrectly, leaving her legally blind:

> ... it was the laser beam that [the surgeon] ruined my eyes with. And he knew it... and up to 72 hours they could have rectified that and he didn't... he didn't... and now some of that is surfacing again. I wished I would have met [my present surgeon] when my glaucoma first showed up. I think things would have been a lot different.

Although she had been trying to cope with her vision loss over the years, PT4 described moments when her despair was overwhelming:

> ... I was fine with all of this. I settled down, and that's it, you know... now this cropped up, you know, which is a kickback from [the other surgeon], and I couldn't help thinking, you know, I came home in tears, you know... I keep telling myself, well it's over and done with, what's past is past... [but] you can't, you cannot [forget] it! You know, everything I touch... every move I make, it's there...

Due to her vision loss and lack of depth perception, she developed a FOF, which subsequently lowered her self-esteem:

> ... I know I hate myself for being afraid... I keep trying... telling and telling myself well, DON'T be afraid! You know, and then there's the other side of that... I don't know how to explain it. I just don't.

Health History: Risks for Falling

Participant Four was a 75 year old woman who had several problems concerning her physical health, mental health, and behaviour that increased her risk for falling. Several physical factors included: advancing age, gender, recent surgery, disabilities, vision loss, and problems with gait and balance. She described her current health status as fair:

> Well relating to my age and all that... I can't expect my health to be what was 30, 40 years ago, you know. So it's got to be "fair".

She also added that she had some "very, very nasty habits", which included, eating poorly and smoking cigarettes.

Participant Four also reported that she had numerous chronic health problems. For instance, she was legally blind from glaucoma, and since her diagnosis, she had eight corneal transplants. Her last corneal transplant was several months prior to our initial interview.

In addition, she was diagnosed with arthritis approximately three years ago. She reported that more recent x-rays did not show any signs of the arthritis. However, later in the interview she commented:

> I've got a bad spot on my neck, which I didn't know... But it doesn't bother me or anything.

As well, PT4 had essential tremor (i.e., of unknown etiology) in both hands. During the visits, I noted the tremor:

> Shortly after I arrived, I noticed that [PT4's] hands were shaking... while she was pouring coffee, the tremor in both hands was very remarkable... her shaky hand missed the cup and splashed coffee on the table (field notes).

Participant Four also stated that she had occasional dizzy spells. She thought that it could be related to a chronic ear condition. Although she had been to several specialists, they could not determine the cause of her ear problems. Further, PT4 stated that she was born with one leg shorter than the other:

> ...... my left leg is [one-quarter] inch shorter than... my right leg. That's why I limp. In '59 when the doctor spotted it, he said to me... it wouldn't bother me in my younger years... [but] it's starting to show up now... [I started to limp] just... seven, eight months ago.

I observed PT4 touching the walls and furniture when she walked around her home (field notes). She stated that she also had trouble keeping her balance when she got up and while walking around, and that she believed it could be caused by:

> ... just about anything. First thing in the morning, my vision is very bad... [and] I have a bad ear that never stops hurting, which causes dizzy spells too, and makes me spin... or my short leg...

Because her vision was worse in the mornings, she took extra precautions:

> ... I don't rush for the coffee pot in the morning. I wait until I'm thoroughly, thoroughly awake before I go near... that stove...

On occasion, she used her cane in her home:

> not as a rule... [one day] I had a very nasty ear ache and I was really spinning, and I was using my cane around the apartment... but just occasionally.

Ordinarily, PT4 did not have trouble lifting herself up from the floor. However, she described one incident when she could not get up after a fall:

> Down I went with my left leg under my backside, you know. And I'm there on the ice, partly on the curb partly on the pavement, and this was one time I was looking around to see if there was ANYBODY around to help me up. I just, I couldn't get up!

Participant Four reported that while outdoors, she did not need the company of another person if she used her white cane. She added:

> ... [my cane] gives me support. If I'm losing my balance, I can lean on it. It's my security blanket.

As well, several behavioral factors increased the participant's risk for falling. For example, PT4 admitted that she was forgetful at times. Further, she stated that she sometimes misjudged her ability to do things. Additionally, she claimed that she had nocturia two or three times per night. She also reported that she did not wear her glasses when she got up at night.

Although PT4 considered herself overweight, she had "no idea" of the exact number of pounds she was over her ideal weight. As well, I noted that she appeared to be overweight (field notes).

Also, I asked PT4 if she left spills on the floors rather than mopping them up right away, and she responded:

> I try to mop them up, but there are times when I don't see where it is, and I take my shoes off and bare footed I step on it... and then I make sure the foot stays there until... I can get it.

I also observed that PT4 was bare-footed during both interviews, which increased her risk for future falls.

Several psychological factors also placed PT4 at risk for falling. For instance, she reported that she felt lonely and had occasional bouts of depression and anxiety.

As well, PT4 reported that she had a FOF. She scored 47 out of a possible 80 points on the FFQ. She was, however, unable to respond to two statements. One statement was, "If I fall, my life would change much." She explained:

> Well, that... will depend on how much damage I do. If it's just a minor injury that'll heal and get over with fine. But if it's gonna put me in a wheelchair, well then it's... you know. Huh... how would you answer that?

In addition, she was unable to respond to the statement: "Recovery from any injury due to a fall would be difficult for me." She stated:

> You see, there again, it depends on the degree of injury, you know... It's hard to say because you don't know.

When I asked her to describe her FOF on a scale of 1 to 10, with 10 being extremely afraid of falling, she remarked:

> Well, I wouldn't say I'm up to 10. I'm not that

> fearful. Until I got my solid cane, yes, I was. I could honestly say that I was. But now with the cane, and it's a solid cane, I can master some of it, you know but I'm not as bad as I was...

The Physical Environment

Several potential hazards for falling were noted in the participant's apartment. First, a mat in the bathroom had a worn, slippery backing. In addition, one bath mat had been placed over another bath mat, and its raised border created a hazard. Participant Four also expressed concern about the placement of the toilet tissue dispenser:

> That toilet tissue is in a very bad spot. Very bad... Okay, so you're sitting on the toilet and you need toilet tissue. You've got to reach across... and so many people have fallen in... in this complex because of that, it has to be, you know.

I also asked if she had ever been afraid of falling in the bath tub, she exclaimed:

> Oh, yah! I'd love to get right down into the bottom and sit in the bottom. But I'd never make it, even with those bars. Those bars... whoever put them up must have been an octopus, and a man that was about six-foot-eleven. They're too high. There's no way!... I tried it! I tried it, and it took me 20 minutes to manoeuvre myself around to get out of there. And at that time, I didn't have that [bath chair], I didn't have that side [rail] on the bath tub, you know...

Other risks for falls in her apartment included unsturdy arm rests and casters on the dining room chairs.

One hazard was also found in the environment surrounding the participant's apartment: the steps in the stairways were not marked clearly. Marking the stairs with yellow strips of tape would have helped her to identify where each step began and ended.

The Social Environment

Participant Four had five adult children, two males and three females. Four children lived in other parts of Canada and the United States. One son who resided in the same city as the participant, lived on the opposite end of the city. When I asked if her family was able to assist with her needs, she stated:

> Oh, as best they can... They are very, very helpful. I try not to bother them too much. But in an absolute need, they're there. If I phone them, I've fallen and I can't get up, they'd be right here, either one of them.

She stated that she also relied on her family to help her buy groceries:

> [I'm] just waiting to hear from [my son], whether he's going to take me [grocery shopping] tomorrow afternoon or Thursday morning... and I'll have my list ready and we'll go and try and buy a month's supply and pack it all away...

As well, her family provided psychological support:

> ... I can make my way around [the mall]... [because my son] and his wife spent many days, many hours with me in [the mall], you know... and finally they turned me loose, dropped me off at one particular place and [my son] and [his wife] said okay we've got to go... but you know what I found out? The little beggars followed me... all around!...and they were quite happy with how I managed... so I can make my way around [the mall] beautifully...

Although PT4 had a strong support system, she expressed concern about becoming a burden:

> ... They've got their lives to live. They're busy, and you know, they've got children, got their jobs, and everything else, you know. And um... uh... see I raised them, not because I want to take advantage of them now, you know. I'm not one of these people that's gonna say, well hey, look what I did for you, you know...

As a result of her fear of being a burden, she stated that she would not immediately tell her children when she fell:

> ... I'd tell them eventually, you know. That I had the fall or whatever, but... not to worry about it ... [tell them] what for?... maybe [I'd tell them] two, three weeks later or something... no there's nothing that the kids could do... no, the first person I'd call would be [my physician].

In addition, she did not talk about her FOF with her physician or family:

> No. No [I have never mentioned my fear of falling]... what can they do... for me? You know, they're there, there, there, there, and I'm here. They're not around. What can they do, you know?... but I mean, what's to

> discuss with them? They can't help me, you know... they know all the problems that I'm having. But... what else can you do? I mean... there's absolutely nothing!...

Although her family had never discouraged her from living alone, she admitted that others had tried to discourage her from living in the seniors' complex:

> Oh yah, there were people that when I first moved in, they felt that I had no business living here and... actually told me to my face. I'm not kidding! But uh... they... were in good health, good vision, you know, and they felt because of my visual problems, and at that time I had that folding cane. That part I couldn't hide from anybody. And I didn't want to hide it, you know. But they felt because I couldn't see properly that I shouldn't be living here...

Participant Four had also made very good friends in the seniors' complex:

> I have a neighbour... [across the hall] ... [and] her sister [next door]... We don't invade each other's privacy, but we're here for each other, the three of us here. There's just a terrific friendship there. It's great, you know.

Additionally, PT4 used very few services in the community. The participant's family paid for a housekeeper to clean her apartment every three weeks. She also had a physician that made house calls and a VON nurse that visited the seniors' lodge nearby provided foot care.

Participant Four used DATS occasionally, however, she also relied on taxi services:

> I use DATS more in the winter time... they are very, very good... [but] with DATS you got to give them... 48 hours notice. And if something comes up unexpectedly, you can't book them, you've got to take the cab.

Participant Four did not subscribe to "Life Call", as she had reservations about the service they provided:

> I'm just wondering about, you know the people around here that had Life Call. Okay, so, uh... I punch Life Call right? And they answer it. Then they've got to get 911 and an ambulance to come here. They can't get in, you know until I let them in on the intercom. I've got to punch the buttons. I can't get to the buttons, right? Even with my Life Call I can't get to the buttons... [then the ambulance attendants have] to go

> over to the lodge, get somebody with a key to let them in. You know? So you've got 20, 30, 40 minutes lost there, you know? We talked. [My friend] and I have talked about the Life Call. I've talked it over with my kids, and I figured well, why am I going to spend 6, 800 bucks for a Life Call and it's of no use to me? Would it? You know? I just don't know...

She also described her concern about the recent healthcare changes and cutbacks:

> ... You know, we're not, we're just not getting it, not myself, it's everybody out there, you know. People from all walks of life... children! You know... but I don't know where they're going with it, I don't know what they're planning, I just don't know where it's going to end... (PT4)

She felt confident, however, in her own abilities to get help after a fall, and confidence that her physician would be there to help her:

> And I think that if I fell hard enough and injured myself, I think I'd still be able to get to that phone, and pull the phone off the desk... [and] if I could get to the phone... I would call my doctor first... I honestly would... he makes house calls, he'll come Saturday, Sunday night, Monday night, whatever, anytime of day, you know. He'll come. I'd call him first. And that way I'd know whether I need to go to the [hospital]... so I mean, what for? [why get Life Call?] I can get a faster response from [my physician]... he'd be here in a flash!

Perceptions of the Experience of Falls

Participant Four had a history of falling. She had fallen several times outside and once inside her apartment. When I asked PT4 to describe her falls, she replied:

> ... [well] you don't know [until the fall happens]... the spill in [the mall] with [my friend]? Well that came on so fast, there was NO WAY I could, you know... well what do you do? When I missed the stairs, and I run down three and on to the floor, there... wasn't time to think or nothing! ... there was nothing I could do...

She also could not explain the cause of a fall she had in her home:

> ... And I don't know what I was doing. And uh... generally when I'm sitting down I'll grab one arm [of

> the chair] to make sure I've got it there, you know. I don't know what I was doing and whoosh... I went over, you know against the microwave cabinet. And... the chair went over and I fell... But you know, it doesn't take much to fall. You know. It doesn't take much...

However, PT4 explained that she had learned something from one of her past falls:

> ... and I was coming out of her house and I went flying off of the front steps. And I learned something by that fall... go with the roll... I just let myself go, and I rolled right down... just relaxed, and I rolled like a snowball...

Perceptions of the Fear of Falling

Participant Four stated that she had been living with the FOF for approximately two to three years. She relived an experience of FOF during the initial interview:

> ... we were walking along a path, and [my companion] was a few feet ahead of me, and all of a sudden I froze, and I screamed! And... I... I... I... I - like I am doing right now. This is what I was doing, you know? And I'm not moving. I was just frozen solid! You know. And finally [my companion] came up to me and she says, what's wrong? And I says well I'm scared to move! I'm going to fall... you know? Well, that really shook me! ... it is [a terrifying feeling]! ...but the distortion ... in the vision, you know... No perception of depth or nothing... things like that can throw you, enough that you will fall!... your emotions, or whatever... comes upon you...

She was unable to determine the exact turning point that she developed her FOF:

> ... It just came on, I don't know when or... or why... No... no particular thing, you know. I just cannot put a finger on it, really!

However, she was able to identify the reasons why she had the FOF.

> Well, yah [I have the FOF] because of my visual problems and my short leg and that, you know. Um... no perception of depth, you know I just... I just don't want to fall... but... I notice you know, when I go out. But I'm looking and trying to feel whether there's something there that's going to... even the slightest ridge that's going to throw me. A bit of an angle on the pavement, you know.

I asked PT4 to describe what the concept FOF meant to her, and she replied:

> ... Well, depending on where I fall, embarrassment. Looking around to see who saw you, and uh... if you can't get up you're looking around and hoping that somebody saw you to help you up. You know. Uh... and getting hurt...

She described her embarrassment after a recent fall:

> When I missed the stairs, and I run down three and on to the floor... there was nothing I could do to... it was stupid! You feel so damn stupid! Ignorant!... But [my friend] has never asked me to, if she could come with me [again]...

She also worried about the consequences of a fall:

> [I worry about] the consequences of injury... I don't want any broken bones... I had my arm in a cast last fall, that was enough. I don't want any other part of me in a cast.

In addition, she described a loss of self-confidence:

> [I've lost] quite a bit [of my confidence] since the last couple of years...

I asked PT4 if hearing of others in the complex that had fallen increased her FOF, and she responded:

> Well... it just makes you wonder... just how careful do they have to be? ... You know, listening to how some of the other people fell... makes you wonder... it doesn't take much! You're here one second and they say well, don't go out on the street because this is going to happen and that's gonna happen, you're going to get mugged, and you're gonna fall and one thing and another. Then you fall in your own home! ... and injure yourself!...

When I asked PT4 if her FOF distracted her, she remarked:

> It might!... Oh yah!... Well, if I go down, down the mall and I'm saying to myself, now don't fall, don't fall. Keep your balance, don't fall, don't fall, don't think this, don't think that. It's just apt to bring something right on.

I also asked if she ever thought about having to move to a lodge due to a fall, and she stated:

> Well, if I fell, you know, and it's funny because the assistant manager asked me the same thing, not too long ago... so far I can manage here... I suppose if I HAD to, I'd go to the lodge... [but] I'm not losing any

> sleep over it... But uh... it's something occasionally you have to think about, and wonder if you would or wouldn't. And I can't say... I could say I never want to go in there, well I don't know!

Participant Four stated that she did not think about FOF continually:

> No... no... [It depends on the] situation, location, you know... on a daily basis... I just don't have any problems with that. I don't. But when it comes to making a choice of going here or going there or whatever, you know, then it's a horse of a different colour. But on a daily basis around here, around my home, the complex, I'm fine there. From my door to their door, you know...

When I asked the participant what brought FOF front and centre to her mind, she replied:

> Just outside mostly and unfamiliar buildings, you know, that have split levels, that sort of thing, stairs. Once I know where the stairs are I'm alright. If it's a good bannister I can hang on and I get my heel right up against the... stair bed, and I run it down until my foot is flat and then my other foot goes out and it goes down, you know... and then I... feel my way down from one level to another... [but in unfamiliar places]... I can run into different levels, unexpected stairs, you know...

However, she admitted that she was very cautious in her home:

> Well, yes... You know... it's natural [to be concerned about falling in your home]. There was a time where we child-proofed our homes? Now we have to senior-proof ourselves. No, it's no joke, it's true. You know... we have to senior-proof...

I also asked PT4 how she tried to resolve her fear of falling, and she stated:

> Just trying not to think about it, and... you know, put it behind me. Be positive [PT4], not negative... [and] I just have to watch out for myself, and try to get some confidence back into myself...

She controlled her fear by making her apartment a safer place to live:

> ... when I think of all the things I had to do, you know, to keep my kids from getting [injured]... All the things I had to do to keep them from harm... And some

> of those things I've got to do against myself now, you know... I've picked up my rugs. I used to have a rug in front of this [table], and I picked that up 'cause I was tripping over it... [and] I had a beautiful coffee table here and I had a lot of things that were just in the way... [I was afraid I would] walk into it... [and] you won't find any electrical cords, or anything like that lying around...

As well, she avoided situations that increased her risk for falling:

> And I use those stairs pretty often 'cause I carry my own garbage out. Until it gets icy out there again and then I'll get [another lady] to take my garbage out... either her or if the kids come around, they'll... take it out... even with my cane and spikes... I'd rather not...

In addition, PT4 used humour to cope with her falls:

> ... [my daughter-in-law] teased me [after I fell on her front steps]... she said, I'm going to charge you for... for damaging my front... and I says, I am going to charge you for snow removal! I had a shopping bag and that shopping bag ended up with... full of snow! So I says, you're going to get a bill from me for snow removal! [laughs]

However, when I asked PT4 if she missed doing the things she used to do before she developed the FOF, she explained:

> Yah... [but] I won't be able to, so what's the point? You know, I just have to say, give up [PT4], and I just can't do it! You know, I can't do it, so be it! What's the point?

Perceptions of Independence

I asked PT4 what the term "independence" meant to her, and she replied:

> Just being able to do everything and anything for myself without waiting for someone else to come along... [but no, I'm] not totally [independent]... no, not totally. No.

She tried to do things without asking for help:

> I try to do as much as I can without asking for help. But there are some areas where I must have help, and I just have to swallow my pride and literally say, S.O.S. - Help! Send smoke signals up in the sky. That was difficult for me to do.

She also remembered how difficult it was to give up some of her independence:

> ... so here's me independent for so many years of my life and then all of a sudden the skids are taken out from under me, and I had to ask for help. Lose some of my independence... that was difficult...

The FOF limited her ability to make choices. For instance, she could go to unfamiliar places without assistance:

> Yah [fear of falling limits my ability to make choices]. For instance, ... where I can go and where I can't go... Yah. Independence again... Well, that there's some places where I just can't go alone. I just have to have somebody with me. That's it! Like... new buildings.

She described how vulnerable she was in an unfamiliar environment:

> I still wasn't used to... it was a new house, you know. Their old place yah, I'd gotten used to it. And it was the new house, and uh... the steps aren't normal steps, you know?... And then another time... I had a real nasty [fall] when I sprained my ankle. That was on their back deck! There again, there was just a two, two to three inch difference between one level and the second level. And that one, I really, really, really went, you know... When I came off of that first level and that was it. And I just went flying, you know. I couldn't hold myself back or nothing...

Perceptions of Living Alone With the Fear of Falling

Participant Four described what living alone in her apartment meant to her:

> ... Safety! ... I, I feel very comfortable at home. I honestly do, you know. I uh... Oh, yah [I like it here]...

Although she was not housebound, PT4 stated that she preferred to stay home:

> Right now, these past few months, [I go out] once a week... I just got into a slump where I don't want to go. It was... over the winter months, I didn't go because of the ice, and then I was waiting for a bed in the hospital, and a donor. So I didn't leave the house at all... now even to go out to the lodge next door to get my hair done is a challenge. Toss a mental coin...

Although PT4 enjoyed living alone, she was at increased risk for isolation:

> ... there's lots of activity taking place in the lodge, you know. And... I don't participate in any of it...

She also stated that she occasionally felt confined in her home:

> [but] yah... occasionally [I feel confined here], you know. I get to the point where I want to push the walls out, you know. Knock out the windows, and what have you... which I wouldn't do, it's just a figure of speech... [this place is] a little bit small... Yah [I feel a little closed in]... and yet it's not all the time... you know.

Participant Four did not mind the thought of moving into a lodge, however, she wanted to remain living alone as long as possible:

> ...I honestly don't know what would happen [if my family could not help me any longer]. I... probably give up and go into a lodge or something... you know. But the longer I can stay out of the lodge, not that there's anything wrong with them... the better... a little more independence...

However, she did not want to move in with her family:

> I don't want to be a burden to them, you know... I don't want to move in with any of them... it wouldn't be fair to them...

When I asked if recovering from a fall would be difficult while living alone, she replied:

> I don't know. I'm just imagining, you know, that it probably would be [difficult]... it depends on the degree of injury, you know... It's hard to say because you don't know...

Additionally, she was not completely happy with the way things were:

> Fifty-fifty, one horse, one rabbit. That's not fifty-fifty. That was my mother's favourite expression. Uh... there's some, some days where, you know, uh... either you feel like you've got the world in your hands or the bull by the tail, so to speak, and then there are other days where, you know, you ain't got it.

She also reflected on the way her life had turned out:

> ... It's the way life turned out for me, that's the way I got to live! What the heck! If I cry by myself here, nobody knows. If the kids show up unexpectedly, I got a big smile on my face, you know... No that's, I mean

> what am I going to do, you know? That's the way it is, and it's going to be and I can't change that. Trying desperately to hang on to what I have. And if I make it fine, if I don't, well...

Summary of the Case Findings

Participant Four was at risk for falling in her apartment and outdoors. She believed that distortion and lack of depth perception resulting from glaucoma had caused her FOF. She described her FOF as intense before she got a sturdy white cane. Since that time, however, her FOF was not as intense. In addition, her FOF was not constant. Although she agreed that it limited her activities, she was still able to go on with her life to a certain degree. Recently, PT4 had stopped going out socially, and only ventured out when it was necessary. However, she did not relate staying closer to home to FOF.

Participant Four was considered physically "in transition" according to the criteria established by Speechley and Tinetti (1991). She met five out of a possible nine criteria for being physically frail. These criteria included: balance and gait abnormalities, infrequent walking for exercise, lower extremity disability, depressed, and near vision loss. Participant Four also met two out of a possible four criteria for being physically vigorous: under age 80 and cognitively intact. These qualities of frailty and vigor are outlined in Tables 1 and 2, and a summary of the results of the combined frail and vigorous qualities is presented in Table 3 in the next section. In sum, the intensity of the participant's FOF was appropriate to her present limitations.

Reflections on the Case Studies

The data integrated from multiple data collection methods for each participant were presented as individual case studies. All four participants were at risk for falling in their homes and outdoors. As illustrated in Tables 1, 2, and 3, two women were "frail" and two women were "in transition", according to the criteria established by Speechley and Tinetti (1991).

Table 1.

Qualities of the Frail Elderly

QUALITIES OF THE FRAIL ELDERLY	PT1	PT2	PT3	PT4
Over age 80	X	X	X	
Balance & gait abnormalities	X	X	X	X
Infrequent walking for exercise	X	X		X
Decreased strength in shoulders	X		X	
Decreased strength in knees	X		X	
Lower extremity disability	X	X	X	X
Depressed	X	X	X	X
Taking sedatives	X	X		
Near vision loss	X	X	X	X
TOTALS FOR FRAIL QUALITIES	9	7	7	5

Note. Decreased strength in shoulders or knees were evaluated by the participants' perceptions of ability and pain in these areas.

Table 2.

Qualities of the Vigorous Elderly

QUALITIES OF THE VIGOROUS ELDERLY	PT1	PT2	PT3	PT4
Under age 80				X
Cognitively intact	X	X	X	X
Frequent physical exercise other than walking		X		
Relatively good near vision				
TOTALS FOR VIGOROUS QUALITIES	1	2	1	2

Table 3.

Results of Combined Frail and Vigorous Qualities

PHYSICAL STATE	Vigorous	Frail	In Transition
PARTICIPANT	---	PT1 and PT3	PT2 and PT4

Note. Vigorous = two or fewer frail attributes and at least three vigorous attributes; Frail = at least four frail attributes and not more than one vigorous attribute; In Transition = did not meet the above criteria.

Given their present capabilities and limitations, each participant's FOF was considered realistic. Categorically, all four women were classified in Domain III: Realistic FOF of the paradigm, The Four Domains of Fear of Falling.

The women's perceptions of living alone with the FOF reflected their strong desire to remain as independent as possible. However, the threat of a fall and its potentially serious consequences threatened their diminishing independence. To maintain their present level of independence, the participants relied on physical and psychological support from their families, friends and/or healthcare services. Consequently, social support played an important role in reducing the risk for falling, decreasing FOF, and maintaining independence for the women in this study.

CHAPTER FIVE: UNCERTAINTY

> Sometimes when I don't do anything, when I'm sitting here I say, oh... What if I fall?... What would happen?... then I think oh, maybe I would die... (PT2)

An older woman in this study ponders her future. Her words capture an element of the major stressor found among participants in this study: uncertainty. Moreover, the burden of her uncertainty leaves room for her to think the worst, that maybe she would die.

In it's broadest sense, uncertainty is defined as, "the time of most doubt" (Robinson, Hibbard, & Laurence, 1984, p. 165). It is described in the literature as a normal condition of human existence (Zimmer, 1983). However, perceptions of uncertainty can be exaggerated during critical life events, such as illness (Wiener, 1975). In older age, when falls become more frequent (Craven & Bruno, 1986; Prudham & Evans, 1981) and their consequences more severe (Kennedy & Coppard, 1987), they too become critical life events for many elderly people. Nonetheless, uncertainty in relation to the fear of falling (FOF) has not been examined in the literature.

Early in the data analysis phase of the focussed interviews, the concept uncertainty emerged as the major theme. Participants described six elements of uncertainty: (1) body uncertainty, uncertainty of their physiological functioning, their ability to perform an activity without falling, their ability to prevent a fall, and their ability to recover from a fall; (2) etiologic uncertainty, uncertainty of what caused past falls and what triggered their FOF; (3) temporal uncertainty, uncertainty of when a fall might occur; (4) prognostic uncertainty, uncertainty of the future; (5) environmental uncertainty, uncertainty of the outside physical environment; and lastly, (6) treatment uncertainty, uncertainty of how to resolve the FOF and uncertainty of the assistance available from the healthcare system.

These elements of the theme of uncertainty have been previously described in the literature on uncertainty in illness. For instance, Wiener and Dodd (1993) found that the three elements, temporality, body, and identity, were permeated with uncertainty for 100 cancer patients in their study. In addition, Cohen (1993) established that five elements of uncertainty (event uncertainty, temporal uncertainty, etiologic uncertainty, treatment uncertainty, and prognostic uncertainty) were major family stressors for 33 families of children with cancer. These research findings provided validation and structure to the data in the present study. Two other themes were identified by participants in this study: the physical, behavioral, and psychosocial factors affecting falls and FOF, and coping with the FOF.

In this chapter, I propose that the theme uncertainty has significant relevance to Mishel's (1988) theory of Uncertainty in Illness. Moreover, this theory appears to have explanatory power for the data gathered from each of the instruments used; the Assessment Guide for Falls (AGF) and Fear of Falling Questionnaire (FFQ), as well as the interviews.

Following an overview of Mishel's (1988) theory of Uncertainty in Illness, I present the perceptions of four older women living alone with the FOF using the theory of uncertainty in illness. As such, the research unfolds as a process, capturing the complex circumstances involved in the FOF phenomenon, and the closely-linked coping strategies used by the participants. I conclude this chapter by relating the research to rival theories and discussing how this study complements the theory of uncertainty as well as advances knowledge in theory related to the FOF.

Mishel's Theory of Uncertainty in Illness

Mishel (1988; 1990) is refining a middle-range theory of Uncertainty in Illness that explains how individuals construct meaning for illness-related events. She defines uncertainty as the inability to structure meaning around these events. That is, the individual is unable to assign definite value to objects or events and/or is unable to accurately predict outcomes due to a lack of sufficient cues.

Mishel (1981) postulates that stimuli perceived as uncertain lead to increased stress and result in appraisal of the situation. A threat to the self is identified, which leads to a secondary appraisal, and direct action results. Mishel (1988) organizes the theory of uncertainty around three major themes: antecedents of uncertainty, appraisal of uncertainty, and coping with uncertainty.

Stimuli Frame: Antecedent to Uncertainty

According to Mishel (1988), the primary antecedent to uncertainty is the "stimuli frame". Stimuli frame "refers to the form, composition, and structure of the stimuli that the person perceives..." (p. 225). The stimuli frame has three components: symptom pattern, event familiarity, and event congruence (the consistency between what is expected and what is experienced in illness-related events). These components of the stimuli frame decrease uncertainty. However, the participants in this study lacked all three components which increased their uncertainty.

Symptom Pattern: Pattern of Past Falls

Mishel (1988) states that the meaning of the symptoms that occur in illness can be determined by the patterns they create. If the symptoms are consistent, they can be used to reliably gauge the state of illness. If the symptoms are inconsistent, a pattern is not discernable, and thus, the individual perceives uncertainty.

In this study, all four participants had a history of falling. Three women reported falling several times outside their apartment, and all the women admitted falling in their homes. Two women also spent the night on the floor following a fall, because they could not get up by themselves. Because their falls did not create patterns, the participants perceived uncertainty.

The symptom of a fall, trip, slip, or stumble is the physical sensation of losing balance. Instinctively, an attempt is made to regain balance and thus, prevent a fall and possible injury. However, in this study, three factors interfered with the prevention of participants' falls: (1) the unanticipated nature of the falls (i.e., loss of balance resulting in a fall), (2) inconsistencies in the frequency, number, and location of falls, and (3) their emotions (i.e., acute fear and embarrassment), which influenced their perceptions of the situation.

The older women in this study described their falls as unexpected or unanticipated:

> [The previous falls I had] just happened... with me now... well, any falls I've had are all very sudden. (PT1)
>
> I couldn't even think about preventing [the fall], you know... (PT2)
>
> ... I just went down, that's all I can tell you. (PT3)
>
> ... But there was nothing, there was nothing I could do to prevent it! You know, I didn't know it was coming. I wasn't looking for it. Wasn't even thinking about it, you know... (PT4)

When the falls were unexpected, participants had little time to react, and hence, no time to prevent the falls or even prepare for them.

Participants also described inconsistencies in the frequency, number, and location of their falls. In addition, injuries resulting from their falls varied in severity and hence, the duration of recovery also varied. Below, the experiences described in one case are used to illustrate these inconsistencies.

One participant in this study admitted to falling, "so many times, I can't tell you" (PT3). She recalled falling in her bedroom, bathroom, kitchen, hallway, entrance of her building, and in several parking lots. Her falls were numerous; the injuries she sustained and the potential for injury from them varied in intensity. Below, she describes the physical consequences of some of her falls:

> I climbed up on the step ladder. I fell... once. I didn't hurt myself... (PT3)
>
> I fell between here [in the hallway]... And it's a wonder I didn't knock myself out, you know! But I did cut my... eyebrow (IV.3-2.282-292)... the blood was running down my face. I thought what on earth did I do to myself? (PT3)
>
> ... and if I hadn't of grabbed [the hand rail]... I'd have hit the back of my neck right here in the bath tub! ...It could have knocked me senseless and maybe killed me right there. (PT3)
>
> But when I fell that time [at the front entrance], oh! Was I ever sore. For months after, I thought I broke all my ribs. I thought, gee... it's so sore even yet. (PT3)

Participants in this study stated that when they were confronted with the sudden danger of falling, they experienced fear. This type of fear is described by Rachman (1990) as "acute fear" (p. 3). Acute fears are provoked by tangible situations which subside immediately after the frightening stimulus is removed; and as such, are described as transient.

All four participants used the word "scary or scared" to describe the immediate prospect of sudden danger of a fall. For example, they described their FOF as "scary", "scared to move", "very very scared", "scared silly", "scared the daylights out of me", and "scared to death". In one instance, a participant described how frightened she was of falling after her hip surgery:

> Yah. I was very, very scared... when I went to physio... I was so nervous and so scared and I... think I'll never make it. And [the physiotherapist] told me later on, she said, you were just a basket case. (PT2)

Participants also used words to express the intensity of their FOF, which included:

> ... not a very pleasant feeling... (PT1)

> Terrifying... especially if you live alone... (PT1)

> ... it sort of frightens you... (PT4)

Three participants also defined their FOF as embarrassment:

> ... Well, depending on where I fall, embarrassment... I think to myself, well that was clumsy! You know. What will everybody else think? Clumsy ox! ... Oh yah, I was hurting, I was hurting! In more ways than one, I guess. Partly embarrassed... (PT4)

> ... there was nothing I could do to... I, you know... it was stupid! You feel so damn stupid! Ignorant! (PT4)

> ... [there is] great embarrassment [when you fall]! ... you are so ashamed... I think it's embarrassing. (PT2)

> ... I kind of worry about [being embarrassed] on the streets... I didn't want to have my clothes up to my neck or something like that naturally... (PT3)

Lazarus (1991) states that embarrassment is an alternative term for the emotion shame. The women in this study related their feelings of shame or embarrassment to their FOF, because they wanted to prevent or avoid having their personal "failures" observed by others.

In addition, Mishel (1988) states that emotional arousal and selective attention can limit the accuracy of symptom perception. In one case, a participant stated that her fear was so intense that it paralyzed her:

> ... and all of a sudden I froze, and I screamed! And... I... I... I... I - like I am doing right now. This is what I was doing, you know? And I'm not moving. I was just frozen solid!... I actually froze and blubbered... I was a blubbering idiot... And things like that can

> throw you, enough that you will fall!... your emotions, or whatever... comes upon you... (PT4)

Two participants also described how their fear could distract them from what they were planning to do. As an example:

> ... If I think too much about [falling], then I'm apt to be in trouble, you know... if I go down, down the mall and I'm saying to myself, now don't fall, don't fall. Keep your balance, don't fall, don't fall, don't think this, don't think that. It's just apt to bring something right on. (PT4)

Although one participant denied that her FOF distracted her, I observed and documented her distraction after a near-fall she had during the visit:

> ... when she moved from the counter to the fridge, she lost her balance. At that point, she made a quick move to grab onto the fridge door. The incident made her forget why she had gone to the fridge in the first place. It was obvious that she just wanted to quickly sit down in the nearest chair to regain her composure. The FOF had taken over her thoughts [distracted her] for that moment (field notes).

Participants' emotions acted as "potent attention-seizing distractors" (Mishel, 1988, p. 227). In addition, the women also admitted that their FOF persisted long after the actual fall occurred:

> ... I get all tensed up... I can still see the floor coming up at me. The floor seemed to be coming up at me as I was falling... you know you get an awful fright getting sent flying across the foyer of a building, and I can see that floor coming at me. I can still see that... I can see it as vividly... oh yah... I haven't forgotten. (PT1)

> I see myself sometimes falling... I see myself falling flat on my face, and losing all my teeth... it causes me great anxiety. (PT2)

Rachman (1990) classifies this persistent, tangible fear as "chronic fear" (p. 3). This author and others (Averill, 1988; Lazarus, 1991) make a clear distinction between fear and anxiety. They believe that the hallmark for anxiety is the inability to identify the source of one's fear. In contrast, acute or chronic fear are tied to tangible sources of provocation (Rachman, 1990).

Two participants stated that they developed the FOF approximately one year ago, and one participant claimed to have the FOF for approximately two to three years. Another participant believed that although she had the FOF for about 10 years, it had intensified in the past year.

Moreover, because participants were in a chronic state of fear, they remained forever on guard. For them, staying alert and being cautious were unrelenting internal tasks:

> ... I think [being careful not to fall] it's always on your mind... yah, I think it is. You know, when you're moving around, getting up... (PT1)
>
> [My fear of falling] keeps me alert and keeps me watching... But I am very, very careful, I admit... It's on my mind all the time... if you get that [fear of falling] right out of your mind, you're gonna fall. That's what I think. 'Cause you're going to be careless. No, I think of it, and I take precautions. (PT3)

Uncertainty Generated by Unpredictability

When falls lacked pattern or predictability, three elements of uncertainty were generated. These included: (1) uncertainty of when or where a fall would occur in the future (temporal uncertainty); (2) uncertainty of the cause of their FOF, falls, and dizziness/imbalance (etiologic uncertainty); and (3) uncertainty of being able to recover from a fall (prognostic uncertainty). They are described below.

When the circumstances surrounding their falls varied, participants could not form a pattern. Hence, they were not able to reliably predict when or where a fall would occur in the future. This lack of predictability generated temporal uncertainty:

> ... And I think, what if I fall now? Sometimes when I'm going to bed at night, I think oh! I hope I don't fall when I get up in the night to go to the bathroom... (PT1)

> ...You're here one second and they say well, don't go out on the street because this is going to happen and that's gonna happen, you're going to get mugged, and you're gonna fall and one thing and another. Then you fall in your own home! (PT4)

Although participants were able to identify the source and duration of their FOF, three women were, however, uncertain about what triggered the fear:

> No, I'm not sure... it must have been after that fall... (PT1)

> Well, I don't know whether I ever really... was a special point in my fear of falling... (PT3)

> ... It just came on, I don't know when or... or why... No... no particular thing, you know. I just can not put a finger on it, really! (PT4)

Only one participant was able to describe the circumstances that triggered her FOF:

> I think after I had my last operation [on my left hip, one year ago]... I was very, very scared... I was at physiotherapy... That had to do with those crutches, and of course, the fear of the first fall... But it had to do with the crutches, and I took a step and I thought it is not right way I have my crutches, but she said that is the way it has to be! And then I stumbled and they grabbed me. But see that increased the fear! (PT2)

Additionally, some participants' falls were complex and ambiguous, thus, their etiology lacked salience. They identified two components of etiologic uncertainty: uncertainty about what caused their falls, and uncertainty about what caused their dizziness or imbalance.

When participants were unable to accurately appraise the circumstances surrounding their falls, more uncertainty was generated than when the specific cause(s) were known.

> Well, I don't know what I... I mean I was getting ready to go to bed. And I have no recollection of anything... (PT1)

> ... because I don't know [how I fell]! ... they think I might have fainted, but I don't know. I was sitting in the chair. And I might have turned too quickly... I don't know! (PT2)

> You tell me [what caused me to fall]! ... I don't really know [why I fell], I don't know if it was anything. It's just one of those things. (PT3)

> ... I don't know what I was doing and whoosh... I went over... (PT4)

When the causes of falls were unknown, participants could not accurately assess what contributed to their falls. Therefore, they felt less confident about predicting and preventing falls and injuries in the future:

> ... well, what happened? I don't know what happened. You know, it happened so fast. You just don't know! ... But how do you prevent [a fall] when you don't know it's coming? You know. Most times you don't know... It just happens and that's it... And you can't do anything about it. (PT4)

When the causes of previous falls were known, however, participants were able to accurately determine the circumstances leading up to the falls:

> ... and then when I fell the other time I fell in front of the elevator... I turned quickly and my soles, the shoes I had on, the treads on the soles. I just stuck to the carpet, and I twisted my body and my feet stayed there. And down I went. (PT1)

> And... so I had to go to the bathroom, and instead of holding onto the bed, I grabbed the walker. And we collapsed... collapsed, the walker and I... I had fallen because I was not taught in the hospital how to get in and out of bed! I blame the hospital for that. (PT2)

> ... I had another [bath mat] there that wasn't as good... so anyway I was drying myself and I guess I bent over to dry my legs... and when I bent down, my feet went out underneath me and I went backwards in the tub. (PT3)

> ... and she [and I were]... window shopping when we came out, you know. And [I] just completely forgot about taking the ramp... And I didn't give it a second thought and DOWN I went! (PT4)

One participant was able to determine that the cause of some of her falls was related to one leg being longer than the other. With this information, she was able to anticipate a fall and predict situations when a fall might occur in the future:

> Mind you I've stumbled num[erous times]... but I'm getting to the stage where I can catch myself now. I stumble with this toe, you see, with this foot being a little bit longer. (PT3)

According to this participant's responses on the FFQ (Dayhoff et al., 1994), PT3 felt that she could probably prevent herself from falling (statements 3 and 9). Ultimately, she felt more in control of being able to prevent falls and injuries in the future. This control reduced her uncertainty.

One participant in this study was not concerned about what caused her dizziness or imbalance:

> ... I don't really worry about those things [the cause of dizziness and poor balance]... (PT4)

However, three participants were concerned about dizziness and/or lack of balance:

> Well, sometimes I do [worry about losing my balance] ... [my balance] kind of worries me sometimes... (PT3)
>
> ... I don't like to lose my balance, no. And then when I feel a slight, slight bit of dizzy, I'm going to sit down. And I mean, I get over it. You know. I try to control those things by doing what I have to do. Sit down, drink a glass of water... (PT2)
>
> I lose my balance. I mean I have a tendency of losing my balance and I have that fear... (PT1)

In addition, three participants were unable to identify the cause of their dizziness and/or imbalance. As an example:

> I don't know what causes the dizziness, to tell you the truth. It's just, one of those things, I guess... I don't know what causes it. (PT3)

When the women were unable to determine what contributed to their dizziness or imbalance, they could not prevent or predict its occurrence in the future:

> ... but [losing my balance] doesn't happen all day long or happen often. Just in sort of in fear of it... I hope not [that I don't fall], but how do I know? (PT1)

Rachman (1990) asserts that a fear can be enhanced by phenomena that are not directly related to the fear. In this study, the women's fears were rooted in not knowing what the future held for them. As two older women stated:

> Well, I'll be 89 in November, if I live to see it... well, are we sure when we get past 75? You're not sure of nothing, I don't think, are you? I don't think so. (PT3)
>
> ... but the root [of my fear of falling] really is... I think... the root is the future... (PT2)

The meaning of FOF meant much more than the immediate fear of danger, injury, and embarrassment to the women. They also feared the long term consequences of a fall and the fear of being a burden.

The women's uncertainty left room for them to fear the worst: poor prognosis, dependence, institutionalization, and prolonged death:

> ... and then I think the worst... if I fall again, my life is over... it would be so devastating if I fell again... and I don't think that I would have the courage to do what I always have done... How many chances do you have in your life to do that [recover successfully from a fall]? I think I would give up... I'm 82! What can you expect then? You know. If I hurt myself and I break... my hips and legs... (PT2)
>
> ... the worst thing [that could happen from a fall] would be a nursing home ... you'd never want to be like that! ... even the ones that are mobile! ... when you go in to a nursing home, that's where you lose your... all you dignity and everything else. That's the end of the line... I hope I never have to do that, but who knows? Who knows? (PT1)
>
> Well, if I fall, I might hurt myself and I can't look after myself. Who's going to look after me? ... I'm worried about what I'm gonna break [if I fall again] or what I'm gonna do! ... And at my age, I wouldn't expect to live much longer... (PT3)
>
> ... But [having to move to a lodge]... it's something occasionally you think about, and wonder if you would or wouldn't. And I can't say, you know... so I could say I never want to go in [the lodge], well I don't know! (PT4)

For three participants, the thought of moving to a lodge and/or nursing home was analogous to loss of independence, dignity, autonomy, and privacy. However, one participant revealed a more positive message:

> ... when I see what they're doing with, you know people in wheel chairs and walkers and canes and everything at the lodge here, they couldn't ask for a nicer place to be in, you know. I mean... if you have to go, why not go there... (PT4)

Because this participant viewed moving to a lodge as a positive change, she felt less uncertain about her future. For the other participants, however, the notion of moving to a lodge created negative stimuli about the possible consequences and future outcome of a serious fall. These negative stimuli generated more uncertainty about the future.

In addition, all but one participant expressed concern about being a burden to her family/friends. Her concern was overshadowed by the disappointment of a recent fall which forced her to relocate to a smaller apartment in a seniors' complex closer to her daughter's home:

> The family, they put me in here, I always tell them... it was their idea, not mine! I was quite happy to stay back where I was. And I never had any falls or anything since that, so I could have stayed there... I don't know, I don't like it [here] as well... (PT1)

Thus, she had fewer reservations about asking her daughter for help:

> My daughter wanted me to live here so she has to empty my garbage! (PT1)

> I didn't bother phoning that thing [points to Life Call pendent]. I phoned my daughter and son-in-law... because I knew they were home. So they came over and helped me get up... (PT1)

However, by the second interview, this participant had resolved some of her disappointment and frustration:

> Oh yah... I hate to be a burden to anybody. My, daughter said I don't know... why you should feel that way... Whether she just said that to make me feel

> better, I don't know. (PT1)

The other participants expressed an extreme concern about being a burden to their family and friends:

> If I fall, I think I won't be of any use to anybody, I will not be good to [my husband], I will just be a hinder to everybody... a burden to my children and to the healthcare [system]... then I'm so dependent on other people... [I am so afraid of] being dependent... (PT2)

> ... I don't know if I could have somebody to do... to have around me all the time... Because I would feel... maybe in the way. It should be time for me to go on... And... I hate to bother my son... I just don't want to ask [my son]... I just don't ask him, unless I absolutely have to... (PT3)

> ... I don't want to be a burden to them, you know... I don't want to move in with any of them... it wouldn't be fair to them... (PT4)

To avoid being a burden to their families, two participants expressed reluctance in telling their children when they fell:

> Would you believe, when I fell the last time that I didn't tell my children... I was in the hospital, and I told the people not to say anything... [And they said] well, of course we found out! But you should have told us right away! ... I said, well you couldn't have helped me anyway... It happened twice that I fooled them ... if I can get away with them not worrying about me, I'll take all the steps. (PT2)

> ... I'd tell [my family] eventually, you know. That I had the fall or whatever, but... not to worry about it ... [tell them] what for?... maybe [I'd tell them] two, three weeks later or something... no there's nothing that the kids could do... (PT4)

Event Familiarity: The Meaning of Home and the Outdoors

Event familiarity, the second component of the stimuli frame, refers to the habitual or repetitive nature of the structure of the environment (Mishel, 1988). Event familiarity is generated through a cognitive map built on experience with the environment. Experience enables persons to predict their expected performance in various situations.

When the environment is familiar, uncertainty is decreased.

Participants reported feeling less uncertain in their homes than when they were in the outside environment. However, several risks for falling in their homes were identified by the women themselves and through participant observation. These risks are summarized below.

Two apartments in the seniors' complexes were small, cluttered, and crowded. In three homes, chairs or other objects (e.g., boxes used for storage, etc.) created obstacles in doorways and narrow hallways.

Two homes had throw rugs placed over wall-to-wall carpeting in main pathways, and one participant had overlapped one bath mat in her bathroom over another. Raised edges on rugs pose potential hazards for falling, as two participants confirmed below:

> Sometimes I've tripped over this [throw rug]... I have to keep pulling on it to smooth it out. (PT3)

> I've picked up my rugs. I used to have a [throw] rug in front of this [kitchen table], and I picked that up 'cause I was tripping over it. (PT4)

Clutter, obstructed pathways, and uneven surfaces were the primary hazards found in the homes. However, other hazards were also found. Old slippery bath mats, unsturdy furniture, and spills left on the floor were potential hazards for falling in two apartments. In addition, a hand rail in the bathroom was too high to reach, a toilet dispenser was difficult to reach due to improper placement, a bedside lamp was absent in one case and hard to reach in another case, one hallway was dimly lit, an apartment was cold at night, and lastly, chairs with unsturdy arm rests and casters were potential hazards.

Although all four women were at risk for falling in their apartments, three women described the familiar structure of their environment as "home", and a place of "comfort" and "safety":

> My home is not a house, my home is a home... I sat right away here [after I came home from the hospital], and I thanked the Lord. I was SO happy that I, that I was in my [own house]... I didn't feel strange. I felt right away at home. (PT2)

> ... when I come in this door, and shut the door, it's home. And thank God it's home to me. And that's what I said to that girl when I phoned about the lodge. I said, please honey, this is home to me. (PT3)

> ... [My home means] Safety! ... I feel very comfortable at home... Oh, yah [I like it here]... (PT4)

However, one participant had moved from her condominium into a seniors' complex within the past year. Thus, she had not yet adapted to her new environment:

> Pulling up your roots, it's not very easy... you know... (PT1)

> ... I didn't... I certainly didn't want to move, and I had more room than I have here, you know. (PT1)

In another case, a participant had never fallen outdoors but had fallen several times in her home. Although she had sustained serious injuries with each fall (e.g., several fractured hips and femur), she still was not concerned about falling in her home:

> No I have no fear [of falling] in the house... [even though I have fallen in my home], that has no effect on it. (PT2)

The other women in this study also indicated that their FOF was not as intense in their homes. For example, two women stated:

> ... I don't think too much of [falling in the house]... but on the street I do. (PT3)

> [I have a fear of falling] just outside mostly and unfamiliar buildings, you know, that have split levels, that sort of thing... stairs. Once I know where the stairs are I'm alright... (PT4)

One possible reason why participants expressed less FOF in their homes, is that their household patterns were predictable and certain. Three women had lived at their present address for an average of 11 years (10, 16, and 8 years), and over time, they had gained confidence in the repetitive nature of the pattern of living in their homes. In addition, they described how they attempted to make things more certain or familiar in their environment:

> I hate to stumble, so I have the doors open, a particular opening, not big and not small. And I have one door that leads to the... storage room, and if you don't close the door real good that it locks, then if you touch it, it will open. (PT2)
>
> ... I keep things out in the... where I know what they are... Well, I know that rug's over there. I know that this is here [points to throw rug in hallway], and I know that I have a rug by my bed... So I just know where the things are and I'm just careful... as I say, I've stumbled sometimes over them, but I don't fall. You know, on my toe touches a little bit you know, but I don't fall. (PT3)
>
> ... I'm on the third level. There are four sets of stairs there, seven stairs for each set, for a total of 28. How do you like that?... (PT4)

Moreover, all participants either moved into homes that had safety features already installed or installed safety equipment once they moved in. For example, none of the women's homes had stairs. Further, all the apartments had accessible hand railings around the bath tub and toilet area, and participants used a bath chair when bathing. Thus, the women and/or their families had attempted to place them in a reasonably safe environment.

In contrast to the confidence the women expressed in their homes, the outside environment was described by the women as unstable and unpredictable. Below, several risks for falling in the outdoor environment were identified by participants and through participant-observation.

In one seniors' complex, stairs were not marked clearly with yellow strips of tape. Two other participants described being concerned about heavy doors that could knock them off balance:

> I did my own laundry for the first time this last week! That's when I found the laundry door is almost imp[ossible]... you know, it's too, it's terrible! ... Why would they have it so.... almost impossible to open? When I first went to open it, you know, I thought for a moment, it was locked! But then, you know, you haven't got the same strength... with arthritis. (PT1)

> But what bothers me, I can not go to the laundry room because the door is so very heavy. And that [front] door is heavy too, and to get out and have the door fall against you, you know... and going to the laundry room, I don't dare to do that either, because it is such a heavy door, and when... my son picks me up... everybody opens the door for you who is around. (PT2)

Cold temperatures were also identified as a concern for one participant:

> I wouldn't go when it's... cold... I don't go outside... I stayed home instead of going out. But it was too cold to go out anyway! (PT3)

All four participants stated that seasonal icy conditions were a concern for them and one participant complained that on week-ends, the ice and snow were not removed promptly around the complex.

Uncertainty Generated in an Unfamiliar Environment

An element of uncertainty that was generated by the unpredictable nature of the outside environment was environmental uncertainty. This element is described below.

All the women were concerned about uneven levels (such as stairs or curbs), or rough surfaces outside their home:

> [In the house] I keep things out in the [open]... where I know what they are. But outside my home, I don't know... [I am afraid of falling] when I'm on the streets. Because the streets are not level... and of course I can't see it. (PT3)

> but... I notice [my fear of falling] you know, when I go out. But I'm looking and trying to feel whether there's something there that's going to... even the slightest ridge that's going to throw me. A bit of an angle on the pavement, you know ... [but in unfamiliar places]... I can run into different levels, unexpected stairs, you know... (PT4)

One woman even described her FOF as "threshold phobia":

> ... I called [my fear of falling] threshold phobia... that is translated from the Dutch... I translated it freely. Threshold phobia. (PT2)

Another woman who was able to go outdoors without personal assistance when she used her cane, expressed her concern about moving out of her neighbourhood:

> If I was put in a nursing home, [in] some other district, I wouldn't go outside the door. I'd be nervous... I know the district here and I'm used to walking around this district, and I feel at home. But please don't put me in another place. (PT3)

According to Budner (1962), novelty indicates a substantially new situation in which there are few familiar cues. A complex situation means that there are a great number of cues to be taken into account. The women in this study perceived the outside environment as novel and complex; and these aspects of unfamiliarity resulted in higher levels of uncertainty.

Event Congruence

The third component of the stimuli frame, event congruence, refers to the consistency between what is expected and what is experienced in illness-related events (Mishel, 1988). Lack of congruence between expectations and experience creates questions concerning the stability and predictability of the event. Likewise, Mishel states that unmet expectations of cure also generate uncertainty about when an illness will strike again.

Uncertainty Generated by Event Incongruence

Two elements of uncertainty were generated by the unpredictable nature of the events surrounding falls. These included: uncertainty of when a fall would occur in the future (temporal uncertainty); and uncertainty of the assistance available from healthcare services (treatment uncertainty).

According to the responses on the FFQ (Dayhoff et al. 1994), not one participant was expecting to fall in the next month (two disagreed and two strongly disagreed). In one case, a participant expected to completely recover from a fractured hip and femur she sustained from a fall:

> ... My future plans are to walk, take my walks, and do some exercises... which I don't do now... but my future plans are to live the life I used to live. Yah. Independent. That's what I hope very, very much. (PT2)

However, less than three months later, her expectations for complete recovery without disability were shattered when she fell again, this time fracturing her other hip:

> I think the second hip may be more impact on me... I had a lot more pain... it was terrible to break the other hip. You know, I've been an invalid since the 5th of April, 1995. And... it doesn't suit me very well... I feel crippled. (PT2)

This participant's unmet expectations of a cure generated more uncertainty of when or where a fall would occur again:

> ... [before this last fall] I usually [did] my [own] shopping... [but] why should I do that, you know?... I just could fall. I could fall in the bus, or the taxi... No... no... not any[more]... no, no I don't [go out alone]. And that's one of the preventions, I think. (PT2)

Incongruence may emerge if expectations of recovery are interrupted by unexpected rapid changes (Mishel, 1988). For PT2 who broke her hip, another incongruence in events resulted during hospitalization. The woman's expectations of recovery were unexpectedly interrupted by the development of a large pressure sore. Three months later, the pressure sore still had not healed. Moreover, she experienced a lack of congruence between the care she expected to receive following her fall and what she actually experienced. This incongruence in events created concern and anger about the effectiveness of the treatment she received:

> I asked them to have a look at [my sore heel] and they never did. And the day I left the hospital, they saw it and it was pitch black. They never did anything about it! And now here I am, over three months already, because of the... negligence of the [hospital] staff ... And then the day that I left, they saw it, and they said, Oh! Why didn't you tell us? I said I told ten, at

> least ten of you! Maybe the whole hospital knows about it. I said, but nobody ever looked [at my heel]. (PT2)

Her distress was compounded by the possibility that her condition might worsen:

> Well, I felt anger when at the [hospital], they didn't have time to, to take care of me. They really neglected me. Yah, sure, I'm still angry about it... and I was afraid for gangrene, of course... let's not see the inside of a hospital again... (PT2)

For this participant and others in this study, the lack of congruence between expectations of the healthcare system and their actual experiences generated treatment uncertainty:

> ... I said, well you sent me to [a specialist] once before [and] what did he do? What did he do? He wrote out a prescription and see your doctor. Take these and then go and see your doctor. Now what was the, what good is that for...? (PT1)
>
> And then another doctor, my own doctor... was not available, and somebody else did the [hip] repair, which did not turn out at all! So... he was going to do it again, and I said, no, no, no... (PT2)
>
> And the [hospital]... they knew... I had broken my hip and they couldn't take me. I was there for three hours and they couldn't take me... no room... Then the ambulance went to the [second hospital]. We went there... but they couldn't take me either. So I ended up, like everybody else, ends up in the [third hospital]! (PT2)
>
> He hasn't done a thing for me. And the last time I was there... he told me, the last two times, you'll have to wait four hours... and [when I] went back, he never done anything. Went back the next time, you have five hours to wait... and [when I] went back to him. Come back and see me some other time. (PT3)
>
> ... and [the physician] in turn sent me to somebody else and somebody else and somebody else to the tune, receipts I still have, that I paid out of my pocket almost 600 bucks! And they came up with exactly nothing! (PT4)

When the healthcare system is not able to fulfil expectations of accurate diagnoses, effective treatments and cures, treatment uncertainty is generated. Moreover, participants also described their concerns about the recent changes and cutbacks within the healthcare system:

> The way they're treating the people now, it makes you think! Because at my time of life I'm more liable to need hospital care... So you think about it, whenever I read about these cutbacks and... it is a bit of a worry. I wonder well... (PT1)
>
> ... You know, we're not, we're just not getting it, not myself, it's everybody out there, you know. People from all walks of life... children! You know... but I don't know where they're going with it, I don't know what they're planning, I just don't know where it's going to end... (PT4)

Hearing about the recent cutbacks, and incongruence experienced in healthcare services, increased participants' uncertainty about the future:

> ... no I just... I don't know where, what [the healthcare system] are going to do, I just have no idea. (PT4)

Cognitive Capacity: Risks for Falling

Cognitive capacity refers to the information-processing abilities of persons (Mishel, 1988). Accordingly, processing abilities most susceptible to disruption are those requiring attentional resources. The processing of stimuli frame information is disrupted by demands on the attentional capacity. According to Mishel, any physiological dysfunction will lessen these abilities and subsequently, have an impact on cognition. In short, physiological malfunctions serve to weaken the accuracy of appraisal, as they interfere with cognitive capacity, by impairing problem-solving activity.

The demands placed on the attentional capacity of patients who are ill as described by Mishel (1988), correspond to the physical, behavioral, and psychological factors which placed the older women in this study at risk for falling. These factors were assessed using the AGF. Each participant was faced with a multitude of issues concerning behaviour, physical health, and mental health. These factors generated uncertainty about the body's ability to perform an activity without falling. This uncertainty generated fear, which may have increased participants' risk for falling.

Behavioral Factors

Several behavioral factors increased participants' risk for falling, and included: forgetfulness, lack of judgement, medication use, lack of rest and activity, getting up during the night, and wearing improper footwear. These behavioral factors are discussed in the paragraphs that follow.

All four participants admitted that they did things without planning them in advance. Three participants described their behaviour as "impulsive". Three participants claimed that they were forgetful at times, and two participants stated that they did things in a rush. One of the women stated that she had tried to do more than one thing at a time. In addition, two participants admitted that they misjudged their ability to do things and one participant forced herself to do things when she was over-tired.

As well, three women were on medications that decreased the accuracy of their appraisals of the environment and increased their risks for falling. One woman was taking two types of analgesics and an anxiolytic. Another woman was taking sleeping pills, an anxiolytic, and an antidepressant. The third woman was on a diuretic, an antihypertensive, and an antitussive with codeine. These women also admitted that they occasionally forgot to take their medications.

According to Mandler (1979), cholinolytics create changes in the cognitive processing abilities of persons through the manipulation of cortical activity. Persons receiving cholinolytics report loss of alertness, shortened attention span, and difficulty in concentrating. Medications, particularly sedatives, have a depressing effect on cognition and decrease the ability to search for information in long-term memory, to maintain attention, and to suppress distractions. Ultimately, the impairment of memory and thinking lessen accuracy of appraisal, causing environmental events to be perceived as being uncertain (Mishel, 1988).

In addition, one woman did not exercise daily and two other participants exercised daily, but they "don't walk that much" (PT3, PT4). Further, only two participants stated that they slept well at night. Another woman slept well "with help" using medication, and the third had trouble getting to sleep. All four women admitted that their sleep was interrupted by nocturia two to four times a night. Two participants also complained of urinary urgency.

Two participants used their cane or walker when they got up during the night, and two participants did not turn on the hallway light when they got up during the night. All four participants stated that they did not put their glasses on when they got up during the night, however, they all wore glasses during the day. The reason provided for not using safety precautions was that they felt they did not need them.

Although every participant stated that she considered safety when choosing her footwear, one participant complained that the slippers she wore around the house were slippery. Another participant was wearing a pair of slip-on pumps with one-inch heels and a third was bare-foot during the interview. Only one participant wore safe footwear during the interview.

Physical Factors

The physical factors described below increased participants' risk for future falls. They included: advancing age, gender, chronic illness, disability, weight problems, pain, recent surgery, vision problems, foot problems, and problems with balance and gait.

At the time of this study, the women ranged in age from 75 to 88 years, with a mean age of 82.5 years. According to the literature, women of this age are twice as likely to fall (Campbell et al., 1990; Glynn et al., 1991; Lipitz et al., 1991; Miller & Kaiser, 1993; Sorock, 1988), and are more likely to be frail or in transition (Speechley & Tinetti, 1991).

All four women wore glasses during the day, and two had vision problems that were not corrected by glasses. Two participants complained that they had no depth perception, and both stated that their poor eyesight intensified their FOF and had caused near-falls. One participant's vision was very distorted:

> And all I could see was this huge mass of water and behind that there's a big black spot, you know? [A friend] says [to me, PT4], that's not, not a lake... That really shook me! You know, it just... it is [a terrifying feeling]! ... I couldn't step to one side or nothing, because to me it was a big lake there, and all it was, was a trickle! ...You know, but the distortion in... in the vision, you know. Something's way over there, or to me it looks like it's over there, and it would be right here, you know. No perception of depth or nothing, you know. And things like that can throw you, enough that you will fall!... (PT4)

Three women stated that they had been diagnosed with osteoporosis, three women had arthritis, and two women had problems with dizziness. In addition, one woman had essential tremor in both hands.

All four women had physical disabilities that varied in intensity. One woman was legally blind, two had hip replacements over a ten year period, two had one leg that was shorter than the other, and two had disabling arthritis.

Only one woman in this study considered herself overweight, although she did not know how many pounds she exceeded her ideal weight. Through participant-observation, I confirmed that she was overweight.

Attentional resources are also reduced by pain or discomfort (Mishel, 1988). Three women complained of pain while mobilizing and another woman complained of a chronic ear condition that caused constant pain and dizziness. One participant described occasional pain and two lived with daily pain:

> ... [the pain in my back is] awful, when I move my neck it grates and grinds and... no cartilage left I guess... my vertebrae are squished... squished. (PT1)
>
> And... when I got up this morning... I was stiff and painful... [and] that sciatica. That bothers me... I have a lot more pain [with this last fractured hip]. (PT2)
>
> ... this here arm I couldn't even lift a cup of tea, [the pain] was so bad... (PT3)
>
> ... My ear is ringing... and all of a sudden I'll get these razor blades moving around in my ear... (PT4)

All four women had surgery in the past year. Two women had undergone cataract/retinal surgery, another woman had her eighth corneal transplant, and another had six hip repairs/replacements within the past year.

Three women had foot deformities, such as a corn, bunions, or ingrown toenails. One complained that her toe was very sore at the time of the first interview, and that she could hardly walk on it. During the second interview, six months later, she stated:

> No. I wouldn't say it's getting better. No. I have to have that part of the toe cut off, you know. Have it ampu[tated]... (PT1)

All four women had trouble keeping their balance when getting up, walking around, and/or moving from one position to another. In addition, all four women had abnormal gaits. During mobilization, one woman shuffled her feet, two women had a noticeable limp, and another woman dragged the toe of one foot (field notes).

Psychological Factors

In this study, all four participants had experienced a loss of a family member or close friend in the past year; however, only two participants stated that they were still grieving their loss. One participant was grieving the recent loss of her husband and a close friend. In addition, all four women reported that they were depressed and/or anxious. Moreover, the women felt threatened by the potential of falling and feared its serious consequences. Because of these threats to their well-being, their FOF was enhanced.

Mishel (1988) states that when situations are perceived as dangerous, cognitive efficiency is minimized, and fewer cues from the environment are processed. As the level of arousal is elevated, the accuracy of the appraisal of the environment is weakened. Thus, a weakened appraisal causes environmental events to be perceived as being uncertain.

Participants' perceptions of FOF were assessed in several ways. First, they were asked to rate their FOF on a scale of 1 to 10 (1 = least afraid; 10 = most afraid). The results were as follows:

Participant 1: over 6
Participant 2: 7 at least
Participant 3: varies from time to time
Participant 4: varies from time to time; was up to 10 before getting cane

Second, the FFQ (Dayhoff et al., 1994) was completed by participants. According to research by Dayhoff and colleagues, the average of those that have the FOF is 48.5 (+/-9.2), and the average of those that do not have the FOF is 40.6 (+/-10.3) out of a possible score of 105 points. Subsequently, the FFQ was revised to a total score of 80 points. The results of the questionnaire in this study were:

Participant 1 scored 57/80 points
Participant 2 scored 59/80 points
Participant 3 scored 50/80 points
Participant 4 scored 47/80 points
(unable to answer 2 questions)

Third, participant-observation provided validation of participants' expressed FOF, and as such, it was determined that all four women demonstrated the FOF.

Assessments of the intensity of the women's FOF in this study were limited by the difficulty involved in translating such expressions as:

> Terrifying... especially if you live alone... (PT1)
>
> ... it causes me great anxiety. (PT2)
>
> ... I was scared to death. (PT3)
>
> ... it sort of frightens you... (PT4)

This limitation is supported by Rachman (1990) who agrees that translating such expressions into a quantitative scale with stable properties is difficult. Nonetheless, determining whether participants' FOF was realistic or unrealistic was of great interest.

As stated earlier, participants' acute FOF acted as a distraction from important cues in the environment and placed them at greater risk for falling. These reactions are described by Lazarus (1991) as "primitive reactions" (p. 235), since the transient fear involves concrete and sudden threats.

It is important to note that the women's FOF did not place them invariably at greater risk for falling. For instance, participants' chronic fear was characterized by continuous alertness and caution. These strategies reduced their risk for falling. In short, these women had developed a chronic FOF which in one way, protected them from future falls. As well, two women were physically "frail" and two women were "in transition", according to the criteria established by Speechley and Tinetti (1991). For one frail woman (PT3) and another woman in transition (PT4), FOF did not prevent them from going on with their lives. By avoiding activities that placed them at risk, their FOF was used effectively to prevent future falls. However, the other two women's perceptions of FOF prevented them from continuing on with their lives. If they were not accompanied by someone, they refused to leave their homes. In short, they had become housebound. These self-imposed restrictions decreased their mobility, reduced their confidence, and placed them at further risk for falling. As well, these two women were severely handicapped with arthritis. Their strength, balance, and gait have been drastically impaired, and their risk for falling was very great. Both also admitted to having spent the night on the floor after falling. Thus, the intensity of their FOF during activity and their self-imposed restrictions on activity was appropriate to their diminished capabilities.

In sum, I propose that all four women had a realistic FOF due to their physical limitations and failing health. Rachman (1990) would likely concur, as he feels that fears related to age in adults appear to be understandable. As the older adult ages, the body becomes frail and physical and cognitive abilities begin to decline. Correspondingly, so too does the ability to cope with threats in the environment decrease. Thus, the FOF may act as a protective force against falls.

Uncertainty Generated by Risk Factors

The risk factors described in this section generated body uncertainty for participants in this study. The women expressed uncertainty about: (1) the physiological functioning of their body, (2) their ability to perform an activity without falling, (3) their ability to prevent a fall, and lastly, (4) their ability to recover from a fall. These components of body uncertainty are described below.

Participants in this study were concerned about their health, mobility, and advancing age. Their concerns generated uncertainty about the physiological functioning of their body:

> ... when I go out [I'm unsure of my balance] ... (PT1)

> You know, but the distortion in... in the vision, you know. Something's way over there, or to me it looks like it's over there, and it would be right here, you know. No perception of depth or anything. And things like that can throw you, enough that you will fall! (PT4)

When an individual is unable to appraise and physically respond to a situation with accuracy, uncertainty is generated. Participants in this study described how the lack of trust in their bodies generated uncertainty of their ability to perform an activity without falling:

> I wonder if I can get in on time before the doors [on the elevator] close... I'm not sure of my balance on the elevator with a load of clothes... that's what I was always afraid of... (PT1)

> Well, a curb, if it's very... I can't step down, and I have difficulty getting, stepping up because of arthritis. (PT1)

> ... I kind of worry about it on the streets. The streets are not very smooth, you know, at times. (PT3)

> ... since I had my eye done, I have to look real close. And it's making me get my neck to the front and I don't like that... I'm bending over making sure that I know where I'm stepping, you know? And that bothers me... But I notice I am causing to look down so I can see, you know... (PT3)

All four participants described experiences when they were unable to get up after a fall. Not being able to accomplish a task successfully enhances their uncertainty about their body's physical capabilities:

> ... I can't get down on the floor, because if I do, I can't get up again without assistance. And if you don't have somebody live with you... that's one of the reasons my fear of falling is that I think well how am I going to get up now? You know... (PT1)

> I thought I'd never get up! ...I thought, how am I ever going to get up? And I never thought about turning over and crawling to the chair. You don't think of the things when you should think of them. (PT3)

> Down I went ...and this was one time I was looking around to see if there was ANYBODY around to help me up. I just, I couldn't get up! You know, here both my feet had just had surgery... So I'm just sitting there, tears rolling down my cheeks... Just couldn't!... couldn't move. (PT4)

The women unanimously agreed that recovery from a fall could be difficult. This posed a threat to the women that generated more uncertainty about their body's capabilities as well as uncertainty of the future:

> It would be so devastating if I fell again... How many chances do you have in your life to do that [fall and fully recover]? I think I would give up.... I will just be a hinder to everybody who knows me... (PT2)

> [Recovery from any injury due to a fall] would slow me down a little bit I guess, and that's why I'm so conscious of it. (PT3)

Structure Providers: The Role of Support Systems

The variable structure providers includes the resources that are available to assist the person in interpreting the stimuli frame (Mishel, 1988). Mishel proposes three structure providers: education, social support, and credible authority.

Education

Mishel (1988) suggests that education may have a direct and indirect relationship to uncertainty. In the indirect relationship, the individual cannot supply structure to the events in the stimuli frame without education, and hence, cannot provide meaning and context to the event. A direct relationship exists when individuals with less education appear to require more time to construct meaning for events (Christman et al., 1988; Mishel, 1988). Moreover, they experience uncertainty for longer periods of time than do individuals with more education.

In this study, two participants had 15 years of education, one had 11.5 years and another woman had less than 10 years of education. Further exploration into the relevance of education and the phenomenon FOF may provide valuable information about the individual's ability to cope with their FOF.

Social Support

The women in this study felt that they did not require any additional formal support at the present time. All four participants went to a physician regularly and saw a podiatrist/nurse for foot care. One woman visited an orthopedic surgeon and two others received homecare assistance with bathing. In addition, all four had housekeepers that came on a weekly, biweekly, or triweekly basis; and in two cases, they did the participant's laundry.

The participants had varying degrees of support from family and friends. Participant One had two children and PT2 had three children, however, in both cases, only one adult child lived close enough to offer support. Although PT2 had many close friends, PT1 did not have any friends upon whom she could depend. Participant Three had two living children, and although one lived nearby, none of her children were able to provide her the support she felt she needed. In addition, she did not receive support from her friends. Participant Four had five adult children. One child lived in the city and another lived in a small town a fair distance from the city. She also had friends in the seniors' complex. She felt that her family and friends were able to offer her the support she needed.

Community support functioned as an effective means of avoiding uncertainty among participants in this study. That is, the women established an informal network of friends and family and/or arranged to have services in the community to help reduce the number of threatening events in their lives. Without assistance, however, these women could not remain living alone. One older woman in this study did not have an informal support network. Although she had placed her name on a waiting list, she expressed reservations about moving to a lodge:

> And if I get tired and I sit here and I think, oh what's the use of living? And I don't know what to do. Wish I could do something. Get up and make a batch of cookies! Or do something! So I do, and I forget all about it. If I get over in the lodge, I won't be able to do that. And if I did [move to the lodge], what would I do then? I'd have to go out with the people, and I couldn't hear them, so what would I do? (PT3)

Appendix L illustrates the roles that formal and informal systems played in each participant's life. The significance of social support in participants' lives, however, extended beyond their physical needs. Families and/or friends also provided psychological support to the women:

> ... [my daughter] always phoned me every morning... I thought well she'll phone, she'll call... I said to myself, oh she'll come and save me.... it's so funny, it's strange, really strange, because you'd think you'd be in a panic! Oh no, I just thought well [my daughter will] eventually come... (PT1)
>
> You know, and my son... phones me every night to see if I'm okay. He doesn't trust me anymore. But it is just the same nice. (PT2)
>
> Oh, I talk to [my family] sometimes every day, and sometimes two or three days apart (PT3).
>
> I have a neighbour... [across the hall] ... [and] her sister [next door]... We don't invade each other's privacy, but we're here for each other, the three of us here. There's just a terrific friendship there. It's great, you know... Oh, yah [my family calls me frequently]... they phone oftener than that [once a week]... (PT4)

Three participants also stated with certainty that others were there when they needed help:

> So [my daughter] came over and she found me on the floor! (PT1)
>
> And at 6 o'clock indeed [the paper boy] came... And I asked him for help. Help! And then he said what can I do? ...There is a friend, and he will do anything he can. And he right away came... So then [my friend] went to the manager, and in five minutes, he was here with the key. (PT2)
>
> I can make my way around [the] mall, but my son trained me on that one. [My son] and his wife spent many days, many hours with me in [the mall]... and... you know what I found out? ... [they] followed me all... all around! Back-tracked and followed... [they wanted to make sure I could] make it on my own... so I can make my way around [the mall] beautifully. (PT4)

In addition, two participants in this study expressed their trust in the healthcare system:

> I, I rely on the system too, as you can see. You know I have good homecare and I really, I don't know about healthcare as a whole, how they are operating, and if it is to the satisfaction of the population, I don't know. But I have excellent care. (PT2)
>
> I wished I would have met [my current physician] when my glaucoma first showed up. I think things would have been a lot different. He's done the best he could, you know... (PT4)

However, participants also felt that some healthcare services were not very helpful:

> Well... the therapist said, you know, we can't do any more for you!... Why surely, it was [disappointing for me]. But I felt... I don't feel that they're doing me any good. (PT1)
>
> But that physiotherapy was just the pits! ... I am not impressed with the physiotherapy in [this city]... not at all. (PT2)
>
> But anyway... I said [to the physician], what's wrong? And he said, oh, let's not get ahead of ourselves. That was his favourite expression, when I asked anything, and he let me go... (PT4)
>
> ... and [my family] took me to a clinic and they bandaged my foot up, gave me some pain killers that didn't work. They gave me crutches which were useless because my balance is bad with my visual problems to begin with. (PT4)

Two participants expressed reservations about the use or effectiveness of the Life Call emergency system. For instance, one participant had reservations about using it:

> ... [I won't use Life Call] Not unless I'm desperate... But anyway, I thought, I'm not going to push, I kept saying to myself, I'm not going to push that button. Finally I had to give in. (PT1)
>
> I don't know [why I don't want to use it], because that's what they're there for, that's way you're paying for, you're paying for it... 'Cause the only time I did call them, the fire department came, the ambulance came. All I needed was somebody to help me out of the bathtub. (PT1)

Also, this participant would not wear her Life Call pendant to bed. Therefore, she did not have it with her when she accidentally fell during the evening coming back from the bathroom:

> ... I don't wear [Life Call] at night. I just leave it where I can... where I can [reach it]... (PT1)
>
> You take it off in bed. You can't have it on. If you have it on in bed, you can activate it accidentally. So I keep it on the bedside table by my bed. (PT1)

Another participant did not subscribe to Life Call. She expressed her concerns about the system:

> I'm just wondering about, you know the people around here that had Life Call. Okay, so, uh... I punch Life Call right? And they answer it. Then they've got to get 911 and an ambulance to come here. They can't get in, you know until I let them in on the intercom. I've got to punch the buttons. I can't get to the buttons, right? Even with my Life Call I can't get to the buttons... [then the ambulance attendants have] to go over to the lodge, get somebody with a key to let them in. You know? So you've got 20, 30, 40 minutes lost there, you know? We talked. [My friend] and I have talked about the Life Call. I've talked it over with my kids, and I figured well, why am I going to spend 6, 800 bucks for a Life Call and it's of no use to me? Would it? You know? I just don't know... (PT4)

As well, not one participant drove a car and thus relied on other people or modes of transportation. Only one participant was using the city's disabled transit system [DATS] at the time of this study. All four participants had similar opinions about DATS services:

> I don't like using [DATS]... you have to wait too long for them to pick you up, and you have to make reservations too far in advance... (PT1)
>
> ... I don't want to use DATS because you have to wait an hour. (PT2)
>
> ... [DATS] are an awful bunch to get a hold of... I don't think they're doing quite right with us seniors... I tried to get DATS but try and get, you might as well try to get a needle in a haystack... it's terrible! (PT3)
>
> I use DATS more in the winter time... they are very, very good... [I have to use the taxi too], because with

> DATS you got to give them... 48 hours notice. And if something comes up unexpectedly, you can't book them, you've got to take the cab (PT4)

Credible Authority

The degree of trust and confidence that patients have in healthcare providers refers to credible authority (Mishel, 1988). Credible authority has an indirect, positive relationship with the stimuli frame. Nurses and physicians strengthen the stimuli frame by providing information on the causes and consequences of symptoms. They also share information about the manifestations of illness and the performance of the healthcare system. However, when information is lacking, events remain unfamiliar and unpredictable, and uncertainty is generated.

When it came to their FOF, three participants revealed that they had never openly discussed their concerns with a healthcare provider prior to the study:

> No, I haven't [talked to my physician about my fear of falling]... (PT1)

> No, I haven't [mentioned my fear of falling to a physician]... well, I don't think I have expressed it very, very often or with intensity. No. (PT2)

> No [I have never mentioned my fear of falling to a physician]... I've just accepted it and... I feel what, what can the doctor do, you know? And generally when I go to see him or he makes a house call, I've got other things to talk about and that subject doesn't even come up, you know. It doesn't occur to me to mention it, even, you know. (PT4)

One participant, however, stated that she had discussed her FOF with a nurse in homecare:

> ... So I was scared to get in the tub after that [fall]. So I asked if I could have someone [from homecare] to come and help me. (PT3)

However, she had not recently talked about her FOF with a healthcare professional:

> ... it seems to me I have [discussed my fear of falling with my physician]... I can't remember... (PT3)

Uncertainty Generated by Lack of Structure Providers

An element of uncertainty regarding treatment was generated because participants had not discussed their FOF with a healthcare professional. Thus, the focus for action was unclear. Tinetti and Powell (1993) believe that FOF is a potentially modifiable condition. However, participants in this study had a sense of vagueness about what to do, expect, know, and ask (Hilton, 1994) about their FOF, and this lack of knowledge generated treatment uncertainty:

> I don't know [how to resolve my fear of falling]... I wish there was a cure [for fear of falling]. (PT1)
>
> Well, how do we overcome [our fear of falling]? Do you find out how to overcome it? And you will tell us. (PT2)
>
> ... what can I do about that [fear of falling]? How can I get rid of it? (PT3)
>
> You mean to get rid of it [resolve my fear of falling]? How in the hell do you think you can get that off your mind... when you're walking on your feet? If I wasn't walking on my feet, maybe I'd get by, and over this fear. I don't know. But I'm using my feet all the time. How are you going to cope with that? I don't know what you'd say. (PT3)
>
> ... what can I say...? How can you... how can you tell [other women] not to be afraid? You know. You can't. (PT4)

The physical and psychological support offered by others helped participants feel more secure, which subsequently reduced their uncertainty. When participants perceived a lack of support, however, their certainty about the future was jeopardized. Three participants identified situations where people had not supported them on an emotional level:

> Well, I just say I, like some of [the other women who live here] say you should get out more. And I said well I don't... and they say, well WE go out... I said you don't lose... I lose my balance. I mean I have a tendency of losing my balance and I have that fear. But I said, you, some of you, you don't understand, I

> said... They don't try to [understand], but if they don't feel that way, you shouldn't feel that way... (PT1)
>
> But... she's the one that said, I think it's about time you went in the lodge. She said... see if I was in the lodge, my son wouldn't have to do so much for me. He used to come and get my groceries, but since she said this, I go down and get my groceries and I take a taxi home. But it hurts me because why does she want to shove me into a home, a nursing, a lodge, if I don't have to go? (PT3)
>
> ... So then my son said, oh, to help [his wife] out, you know? Maybe you should plan to go (to a lodge). (PT3)
>
> ... there were people that when I first moved in, they felt that I had no business living here and... actually told me to my face. I'm not kidding!... Every chance she got, she blasted me for one thing or another ...in their cases, they... were in good health, good vision, you know, and they felt because of my visual problems, and at that time I had that folding cane. That part I couldn't hide from anybody. And I didn't want to hide it, you know. But they felt because I couldn't see properly that I shouldn't be living here. (PT4)

In one instance, a participant also felt that her family could not provide any physical support if she fell:

> Well, if I fall, I might hurt myself and I can't look after myself. Who's going to look after me? ... I don't have the help [I need to recover from any injury due to a fall]... as far as living with my children, I wouldn't. Because now with my daughter-in-law, the way she is... (PT3)

Certainty Generated by Social Support Systems

According to Mishel and Braden (1988), credible authority and social support assist in the prevention of uncertainty. In this study, the women's perceptions of living alone with the FOF reflected their strong desire to remain as independent as possible. However, the threat of a fall and its potentially serious consequences threatened their diminishing independence. To maintain their present level of independence, the participants were dependent on their families, friends and/or healthcare services for physical and psychological support. Consequently, social support played an important role in reducing the risk for falling, decreasing uncertainty and FOF, and maintaining independence for the women in this study.

Appraisal: Living Alone With the Fear of Falling

Mishel (1988) states that when individuals appraise uncertain situations, two major processes are involved: inference and illusion. Inference appraisals result when uncertainties are perceived as dangerous, because they are unable to evaluate the situation using related examples. Further, inferences are built on personality dispositions, general experiences, knowledge and contextual cues. Because the predictive accuracy of the inferences are unknown, there is a possibility of harmful outcomes. An illusion, on the other hand, results when uncertainties are perceived as an opportunity. Beliefs about uncertainty are formed by emphasizing their favourable aspects (Taylor, 1983).

In this study, participants' perceptions of uncertainty were built on both inferences and illusions. They reasoned that not only was their uncertainty related to FOF negative, but it also created opportunities for the future. The strategies used by the women to help them cope with their uncertainty are dependent on these negative or positive appraisals.

Several factors generated a state of uncertainty among participants. The women perceived uncertainty about the environment, their bodies, the cause of their falls and what triggered their FOF, when a fall would occur, the treatments available, and the future. To reduce their uncertainty and maintain some control over their lives, the women used a variety of coping strategies. These coping strategies were revealed in their attitudes, feelings, and behaviours of living alone with the FOF.

Coping, Uncertainty, Danger: Using Direct Action

When uncertainty is perceived as a danger, the coping methods employed are directed towards reducing uncertainty and managing emotions related to the FOF (Mishel, 1988). According to Mishel, there are two coping tracks: mobilizing and affect-management.

Mobilizing included four strategies of direct action in this study: (1) relying on structural features of their homes, mechanical aids, and another person's arm; (2) being continuously alert and cautious; (3) modifying the home environment; and (4) seeking social support. These preventive strategies enabled participants to take direct action towards reducing their uncertainty. Affect-management strategies used by the older women included: (1) talking to themselves (giving pep talks and/or scoldings); (2) wishful thinking; and (3) confronting/talking about the fear. These strategies enabled the women to take direct action towards managing emotions related to their FOF.

The strategies used to reduce uncertainty are discussed separately in the section below. They were, however, used in varying combinations by participants in this study. Coping by using direct action, requires that individuals focus their efforts on the problem. By doing so, participants in this study attempted to reduce their uncertainty of the environment.

In Lazarus and Folkman's (1984) classic work on coping and adaptation, they state that the concept "prevention" parallels that of "anticipatory coping". In this study, all participants attempted to prevent falls whenever possible:

> Well, isn't that natural? That you will do anything to prevent [a fall]...? (PT1)
>
> ... I will do anything to prevent it [a fall]... Prevention. Yah... (PT2)
>
> Well, I won't fall on that hip if I can help it. Never... I'll just do all I can do to keep from

> falling... I'm not going to try to fall, that's for sure... I'm trying not to fall. (PT3)

> ... you know, I just... I just don't want to fall... (PT4)

To prevent falls, the women took direct action, as described below.

Relying on others and things for support. All four women stated that they used their canes outside their home. In addition, they admitted that they limited their outdoor activity due to their FOF. Two participants would not ever leave their home unless they were accompanied by another individual because of their FOF.

During the visits, I observed participants holding or grabbing on to things for support and/or using walking devices. For example, PT1 used her cane, walker, furniture, walls, and counter tops during mobilization, or as she explained, "... whatever I can grab on to that doesn't move..." Participant Two used two canes and a walker to balance herself. She also admitted that she used the walls and furniture, "for one reason or another, but not because I want to." Participant Three used the furniture and walls only when she felt that she was going to fall, or as she put it, "when I feel funny." Participant Four touched the walls and furniture to guide herself through her home, and on occasion, she used her white cane indoors, when "[my head] was really spinning."

Throughout the interviews, participants confirmed over and over again that they relied on structural features of their homes, mechanical aids, and other people to decrease their uncertainty and fear:

> ... as long as you've got something to grab on to... I use my walker, I can go faster with the walker... and I don't go out alone, because of that [fear of falling]. But if someone takes my arm, I'm okay... you're much more confident with that [another person's arm]. (PT1)

> Well I hold on to both [people]... I hold on for dear life to who ever it is. (PT2)
>
> ... I could walk around with the two canes and that [walker], you know. And then the table, you know. Sometimes I do [hang on to walls] for one reason or another, but not because I want to. I don't get up so I can hold on to the walls, no. I hold on to my canes and to [points to walker], yah. (PT2)
>
> ... But that cane has helped me an awful lot... I take [my cane] everywhere I go. (PT3)
>
> ... so I thought, well I've got two sons' arms to hand on to, one of them anyway. When one gets tired of me, I'll hang on to the other one... (PT3)
>
> Well, I wouldn't say I'm up to 10 [severely afraid of falling]. I'm not that fearful. Until I got my solid cane, yes, I was. I could honestly say that I was. But now with the cane, and it's a solid cane, I can master some of it, you know but I'm not as bad as I was... If I'm losing my balance, I can lean on it. It's my security blanket... it gives me a lot of confidence. (PT4)

Being alert and using caution. All the women in this study used caution in their activities because of their FOF:

> I think [being careful not to fall] it's always on your mind... You know, when you're moving around, getting up... (PT1)
>
> So now I really am very careful now... And I'm very careful in the house... And at night I go the bath room with the walker and I always have a little light on. I'm careful, because I don't want stumbling. I, you know, even to scare myself ... Yah, I am very careful... (PT2)
>
> I am very, very careful here. You know, I think about how I get into bed, how do I get out of bed... how to do my exercises, you know, and my legs straight and uh, put a pillow under my knees, and do the exercises that I have, you know. (PT2)
>
> [I tell myself] now watch when you step out of the elevator... I said, just watch it!... So I picked my foot up exceptionally high to make sure I got over it. (PT3)
>
> ... and I get my heel right up against the... stair

> bed, and I run it down until my foot is flat and then my other foot goes out and it goes down, you know... and then I... feel my way down from one level to another... (PT4)

Modifying the home environment. During the interviews, all participants described several ways they had tried to make changes to enhance their safety not only in their homes, but also in the seniors' complex itself:

> ... but I put my name down for the one [apartment] on the main floor... and then I can walk to the mailbox and walk to the laundry and walk around. (PT1)
>
> And I wrote to the management about this [steep ramp at front entrance], and he said, well after all, we can not repair the ramp, it costs too much... (PT2)
>
> The high seat I will have forever, I find it very, very handy. (PT2)
>
> ... I got a new bath tub [mat] and it stays, you can't move it. (PT3)
>
> There was a time where we child-proofed our homes? Now we have to senior-proof ourselves. No, it's no joke, it's true. You know... we have to senior-proof... when I think of all the things I had to do, you know, to keep my kids from getting [injured]... All the things I had to do to keep them from harm... And some of those things I've got to do against myself now, you know. (PT4)
>
> You won't find any electrical cords, or anything like that lying around... I've picked up my rugs. I used to have a rug in front of this [kitchen table], and I picked that up 'cause I was tripping over it... I had a beautiful coffee table here and I had a lot of things that were just in the way... yah [I got rid of them, because I was afraid I would] walk into it or whatever... (PT4)

Seeking social support. Obtaining assistance from family and/or friends was an effective coping strategy for the women in this study. Help from others reduced uncertainty by providing the women with physical and psychological support as well as information. In one instance, a participant received information about obtaining assistance with bathing available through homecare, from another resident in the seniors' complex she lived in:

> ... I do have a lady come in once a week to help me with my bath... I wasn't going to bother with it, but... my friend who is a nurse [told me about it]... she's not practicing now. She's like me, she's all crippled up with arthritis. (PT1)

Through mobilization strategies, participants attempted to reduce uncertainty in their environment. Reutter and Northcott (1994) similarly found that participants in their study modified their risk through the use of precautions, and as such, they interpreted situations as minimally threatening. Consequently, the participants became more confident in their abilities and their uncertainty was reduced. However, mobilization strategies also require planning and effort. Moreover, these strategies could potentially create additional conflict and distress (Lazarus & Folkman, 1984). For instance, participants in this study worried about the delicate balance between seeking the assistance they needed to live alone and being a burden to their family and friends.

Coping, Uncertainty, Danger: Affective Management

Mishel (1988) states that when mobilizing techniques are not effective in reducing uncertainty, the person believes that nothing can be done to modify the uncertainty. Thus, affect-control strategies are called into action to cope with their uncertainty. In this study, the major focus of these strategies was to manage the emotional responses related to the FOF.

Giving themselves pep talks. One participant tried giving herself pep talks to cope with her FOF:

> I... I'm telling myself I'm not going to fall, so why plan? (PT4)
>
> ... Be positive [PT4], not negative. (PT4)
>
> I keep trying... telling and telling myself well, DON'T be afraid! You know, and then there's the other side there that uh... I don't know how to explain it. I just don't. (PT4)

Scolding themselves. Three participants scolded themselves for being too fearful, not cautious enough, or for falling:

> I tell myself not to be so stupid! You know, because I know it is, it's not rational... But you know, I will, you know, brace myself, and do it, and not be silly. No. But I tell myself, I'm silly. (PT2)
>
> ... I'll scold myself, if I do things like that [not being cautious], I say, okay, how can you be so stupid! Just watch out! ...I do something that I shouldn't do. Like sometimes picking something up from the floor without the reacher... those things.... then I scold myself. If I do something, really what I shouldn't do, then I, then I'm getting mad at myself. (PT2)
>
> I said [to myself] well, what a silly thing to do [fall]. (PT3)
>
> Well, I think to myself, well that was clumsy! You know. What will everybody else think? Clumsy ox! (PT4)

Wishful thinking. Two participants used wishful thinking to curtail their uncertainty:

> ... I wish I could know how to fall properly. (PT4)
>
> I wish there was a cure [for fear of falling]. (PT4)
>
> Well... it would be nice if it would happen... if they only had a pill that they could give you... for all these problems... arthritis and the whole thing. (PT1)

Confronting/talking about their fear of falling. Three participants felt that talking about their FOF would be helpful to them:

> ... you realize that there are other people like yourself. That your problems aren't, you know, that have never been heard of before. (PT1)
>
> But at the same time, you help me, because I confront now why [I have a FOF]. You know. Yah, that helps. Because I have to confront my fears now... Because you know, it makes sense for me too... (PT2)
>
> I still think, you know, that if, if we had support groups and got into sessions and we yapped and talked about [our fear of falling] and then we could get to the point where we were just about joking and laughing about it and probably get it out of the system that

way. (PT4)

Coping, Uncertainty, Opportunity: Maintaining Hope

When uncertainty is considered as opportunity, the appraisal of the situation is positive (Mishel, 1988). Positive appraisals occur when the situation has a high probability of a negative outcome. Uncertainty then becomes the preferable state, and buffering strategies are used to block the input of new stimuli that could disrupt this positive view.

Participants in this study expressed their uncertainty as the FOF; and for these women, there was a high probability of a negative outcome, such as injury and institutionalization due to a fall. However, the women did not view their future as entirely bleak. Their uncertainty of the future also contained an element of hope. For example, participants all "disagreed" or "strongly disagreed" with the statement, "It is likely that I will fall in the next month" (FFQ, Q1). Their perception of the future illustrates that they were thinking positively about the possibility of falling. The women also expressed hope in the focussed interviews:

> [I'm] hoping that [I] could get better... it would be nice if it would happen... I hope I never have to do that [move to a nursing home]... (PT1)
>
> You know, I hope I can walk again... But I don't let my soul be crippled by [falling and breaking my hip]. I don't want that either. I WANT to get better... I also think... every day it gets a little bit better... yah... that is the power of positive thinking... if we let ourselves to be cocooned, in every aspect, also myself here now, then you lose the battle, I think. You have to fight. And I like to fight. Yah. (PT2)
>
> ... I hope and pray to God I never have to go in [a nursing home]... But I... I hope I never have to go to the hospital... And my goodness, I hope the Lord takes me before I have to go in [a nursing home]. (PT3)

Coping, Uncertainty, Opportunity: Maintaining Spiritual Beliefs

Spiritual beliefs sustained two participants' hope for a positive outcome:

> No [I wouldn't be afraid], because I showed it when I... wasn't afraid. I know that somebody would come, and if I just kept my wits and I did. I'm a Christian, and I felt very, very much that the Lord was with me. Otherwise, normally, I would have been in a panic, or faint, or do... and I felt very calm... (PT2)

> ... Because I feel that I am not alone. I feel that my faith helps me a lot. I feel always that I can talk to my Lord, I can talk to Jesus. I said, Jesus please be with me, don't leave me alone! You know. Sometimes when I feel that... I am anxious, I say, oh, please do help me! And it calms me down. Yah, it does help! (PT2)

> I do, absolutely [think that the Lord helps me and protects me]... yes, it does [give me more courage]... I said, dear Lord, take me there safe and sound. He does, he did... No... I know a lot of people don't believe in the Lord, but I certainly have all my life! He's the only one that'll help me... He's helping, He certainly is. (PT3)

> But I thank the Lord and I ask Him to protect me when I'm going out that I don't fall anymore... I trust in my Lord. (PT3)

Coping, Uncertainty, Opportunity: Maintaining Superstitious Beliefs

Two women tried to prevent further falls by performing the superstitious act of touching wood:

> No [I haven't fallen recently]... Let me touch wood [participant searches for wooden furniture]... Hoping is right! ... well around the house... I haven't fallen for... touch wood [participant touches wooden furniture]... for quite a while. So I hope I don't! (PT3)

> [I fell in the house] just that one time... Touch wood [participant searches for and touches wooden furniture]... (PT4)

Because of the unpredictable nature of the women's falls, they appeared to feel that they were putting themselves at greater risk for future falls just by saying they had not fallen recently. By "touching wood", these participants relied on superstition to maintain their hope, and reduce the uncertainty of falling in the future.

According to Cohen (1993), this strategy and other ritual acts have been used to manage uncertainty for centuries. They have remained surprisingly constant, and can be found in many modern-day societies.

Coping, Uncertainty, Opportunity: Neutralizing the Situation

Participants also attempted to cope with their uncertainty by neutralizing dangerous or embarrassing situations. This strategy was accomplished by blaming other things/people, minimizing the situation, and using humour.

Blaming. All four women in this study found fault in other things and people. According to Lazarus (1991), blame is brought on by feelings of shame:

> I didn't lose my balance or anything, it was just that the ruddy chair went back... That was because this chair went... No I hadn't lost my balance. I wasn't on my feet!... (PT1)

> Well, the elevator, 'cause I can't move fast enough. You know they always have these elevators too fast... (PT1)

> I hate that walker, that's what I grabbed when I fell. I will never use it again. I absolutely hate it! (PT2)

> Now that ridge was raised up during the winter I guess... and that raised up and that's where I stubbed my toe. And it was that little stub that caused it, and I flew in... (PT3)

> ... and ordinarily by myself I get through [the mall]... But with [my friend], and she was window shopping when we came out, you know. And just completely forgot about taking the ramp. And of course she, for her it didn't matter! You know. Stairs are normal to her... (PT4)

Minimizing. Participants also attempted to minimize the seriousness of the situation:

> Oh, and I had another [fall]... It was a silly thing... I nearly forgot about that little episode... it could

> have been a lot more serious... (PT1)
>
> And I was sitting on that pillow and the pillow and I fell. We didn't fall, but we bumped on the floor. I sat there, with my legs like this [demonstrates legs straight out in front of her], and I couldn't get up! (PT2)
>
> Oh, well this is kind of crazy... when I bent down, my feet went out underneath me and I went backwards in the tub... (PT3)
>
> ... I don't really worry about those things [the cause of dizziness and poor balance]... (PT4)
>
> [I've lost] quite a bit [of my confidence] since the last couple of years, you know. But uh... I live it through. (PT4)

Humour. Three participants attempted to normalize their situation with the use of humour:

> ... [the wall system] hasn't been dusted for years... they always say, men return to dust. I have several men here, lying there. (PT2)
>
> ... and I went to the doctor, the one that did my hip, I said, do you know what you did? And that may be why I fell... you made my leg half an inch longer than my other leg. Didn't you think I was tall enough? (PT3)
>
> ... I can give the [store clerk] a [grocery] list, 'cause I can still give them a list. It might be on a bed sheet, but it would still be a list. (PT4)
>
> ... [my daughter-in-law] teased me [after I fell on her front steps]... she said, I'm going to charge you for... for damaging my front... and I says, I am going to charge you for snow removal! I had a shopping bag and that shopping bag ended up with... full of snow! So I says, you're going to get a bill from me for snow removal! [laughs] (PT4)

Denial. By using the coping strategy "neutralizing the situation", the women did not attempt to deny that the situation occurred, but rather, they tried to deflate the seriousness of the situation and avoid taking complete responsibility for the situation. However, one participant did use denial as a coping strategy. Participant Two admitted that because of osteoporosis, she had fallen several times, fractured both hips and her femur, and had four operations in the past year. In addition, she had a heart condition, had difficulty coping with stress and depression, and had a three-month old pressure sore that was still not healed. Nonetheless, she denied having any health problems:

> I KNOW that I am healthy. Because this is not an illness, you know, my breaking of my hip, that is not an illness, that is a freak accident, but I mean, it hasn't made me sick... (PT2)

By denying her health problems, this participant was able to avoid thinking about any negative outcomes:

> ... but I don't think it's... healthy to dwell on those things... the things that don't happen yet... (PT2)

Coping, Uncertainty, Opportunity: Avoiding the Situation

All participants used avoidance strategies to maintain their focus on the positive aspects of their situation. These strategies included: (1) not talking about it; (2) not thinking about it; (3) selective ignoring; (4) redefining the situation; and lastly, (5) restricting activities. By using these methods, they were able to block out any negative stimuli that might alter their view of uncertainty as an opportunity.

Not talking about it. Three participants never openly discussed their FOF with their families or friends, but stated that their families probably knew about it:

> I don't know [if I've ever talked to my daughter about my fear of falling]... I think she real[izes], I don't dwell on the subject, you know what I mean, I don't... [but] I know that she knows that I'm [afraid of falling]... (PT1)

> ... I don't share this fear [of falling] with my children either. They might know it, but... No, I've never complained. No. I don't say I wish I could go, but I can't go because I'm so afraid to fall. No, I don't do that. I just state the facts. I'm not going because... it's too slippery, or it's too cold... No, I'm not afraid of cold, I am never cold. I like the

> winter... [I am] not complaining. No. (PT2)
>
> No. No [I have never mentioned my fear of falling to my family]... what can they do... for me? You know, they're there, there, there, there, and I'm here. They're not around. What can they do, you know?... but I mean, what's to discuss with them? They can't help me, you know... they know all the problems that I'm having. But... what else can you do? I mean... there's absolutely nothing! Nothing they can do... (PT4)

However, one participant stated that she did discuss it with her family and friends, although not recently:

> Well, [I talk about it] with only my son, my family... I've talked to them. I've talked to a couple that I know here. But now that I'm hard of hearing, I don't go down and associate with the bunch. (PT3)

In addition, she felt that her son did not empathize with her situation:

> Well, [my family] know that I'm, that I'm off balance. And I generally, when my son is with me, I always grab his arm... even if I've got my cane, it doesn't matter. But uh... he said that shouldn't make any difference sending you off balance. I said, you try it! Walk with one shoe on and one shoe off will tell you little bit... No, he doesn't think the same [way I do]... no he doesn't [understand]. (PT3)

Not thinking about it. All four participants stated that they tried to avoid thinking about their FOF and the future because they thought it was a healthier way of living:

> No I don't [let it get me down entirely], you have to... if you let it get you down entirely, then... that's not very healthy! (PT1)
>
> I do my best not to think too much about it (my FOF)... (PT2)
>
> Well, I... don't think about falling. I don't think about it. I just go careful! (PT3)
>
> I just take it in stride, you know! I try not to think about it. If I think too much about it, then I'm apt to be in trouble, you know... (PT4)

Selective ignoring. Three participants described how they simply avoided people who did not understand them or did not support their choice in living alone:

> ... they don't try to [understand]... You don't bother with, I just, people like that, I can't be bothered with anyway. (PT1)
>
> ... I can easily ignore them when I get annoyed... Sometimes you get a snarky remark, and then I try to ignore it... (PT2)
>
> ... I noticed that [the store clerks] are not receptive at all. Very, very, very bad. Very bad. So I just don't go there. (PT4)
>
> ... I just ignore her. I figure... I just don't, I don't even say good morning to her. I figure to heck with you, you know. (PT4)

Redefining the situation. One participant was able to avoid confronting her disability by changing the focus of the situation away from herself:

> ... maybe that's why the [physician] said I shouldn't live alone... [the physician] just saw me walking across the... and he turned to my daughter, my daughter was with me. He said, do you know, I don't think she should live alone. And then right away [my daughter]... course I think [my daughter] wanted me to live closer so she didn't have to carry the groceries so far... (PT1)

Restricting activity. Participants were unable to master the unstable and unpredictable nature of the outdoor environment, therefore, they tried to reduce their uncertainty by avoiding places perceived as dangerous or threatening:

> ... but I don't go out alone because of that [fear of falling]. (PT1)
>
> [My fear of falling has] increased [since my last fall]!... Yah, that's why I don't even go, I could have rides, but I don't even want to, to walk down and get in a normal car... my son... said, well, come over for a barbecue. I don't want to go! I don't, I'm scared that I've that I'll fall again. (PT2)

> No... I don't [leave my apartment]. Unless I have to. I don't, I'm not going to church, which I would like to, but then I have to go in a car that is not very easy for me. (PT2)

> But I don't go anywhere... I DON'T go anywhere period ... [I] would not go alone... And that's one of the preventions, I think. (PT2)

> ... I stayed home instead of going out... But on the street I do [worry about falling]. That is one reason why I don't go out that often, too much, which I should more... (PT3)

These participants and others also avoided situations or places they felt were too dangerous:

> I don't like the elevator anymore. I don't go unless somebody's with me. (PT1)

> ... I can't use the buses anymore. I mean if I had a doctor's appointment, I could get on the bus and go, and meet friends downtown. All that just suddenly stopped [when I fell downtown]! (PT1)

> ... we have a ramp there [at the front entrance], and I'm very scared so I don't go up and down [the ramp] alone. (PT2)

> I wouldn't go when it's icy...I don't go outside... the gravel in the back... you can trip on a rock... (PT3)

> ... I carry my own garbage out. Until it gets icy out there again and then I'll get [another lady] to take my garbage out... even with my cane and spikes... I'd rather not. (PT4)

Coping, Uncertainty, Opportunity: Reordering Priorities

For the women in this study, the use of avoidance strategies, such as restricting activity or not thinking about it, served as a way of holding on to the illusion that they were not likely to fall; and if they did fall, they remained hopeful that no harm would come to them.

However, Lazarus and Folkman (1984) emphasize that it is impossible to conquer all human problems, such as chronic illness and aging. In addition, these authors state that coping should not be equated with mastery over the environment. In this study, participants revealed how they learned to cope with uncertain threatening events such as falls by reordering their priorities.

Most participants admitted that they missed doing the things they had done before, and that their choices were more limited since they had developed the FOF:

> I wish I was back where I used to be living, and doing what I want to do and go out and, you know... (PT1)

> What I would like to do, I don't... My activities that I was used to do... I would like to do. (PT2)

To cope with their loss of independence and limited choices, the women reordered their priorities by making changes in their lifestyle. That is, rather than increasing their uncertainty by going outdoors, the women stayed closer to home. Thus, by finding pleasures in solitary activities in their own home, participants were able to adapt to their loss of independence:

> ... but you can always amuse yourself with something or other. Thank God for television! I never realized it would mean so much to me till this year... because I can sit, and nothing hurts when I sit... I can knit and [my arthritis] doesn't bother me. (PT1)

> [Reading]... and I like to play my discs. You know music... [I don't like watching TV] no, not at all... it's wasting my time. I could read in the meantime. I have about two or three books going, you know... (PT2)

> I play solitaire to try to get my mind off [feeling isolated], which helps quite a bit. I used to do fancy work but with my eyes not I can't do that. I do crocheting. (PT3)

In sum, effective coping allows the person to accept, ignore, tolerate, minimize, avoid, or even deny that which cannot be changed or mastered (Lazarus & Folkman, 1984). In this study, participants were unable to modify or master every aspect of their environment. However, they attempted to cope with their FOF by continuously trying to find ways to manage the demands that exceeded their physical and mental abilities.

Adaptation: Perceptions of Quality of Life

For Lazarus and Folkman (1984), coping is a narrower concept than adaptation. Coping involves non-routine behaviours or emotions that reduce distress and uncertainty. Adaptation, on the other hand, is a broader concept that includes routine, even automatic, modes or processes of getting along on a daily basis. In other words, coping strategies must be effective for adaptation to occur (Mishel, 1988). When strategies are ineffective, the individual is constantly struggling to find ways to cope with a difficult situation, and adaptation cannot occur (Lazarus & Folkman, 1984).

As Lazarus and Folkman (1984) point out, the processes of appraising, coping, and adapting depend on a host of personal and environmental variables. These authors believe that a minimum of three outcomes must be considered: morale, social functioning, and somatic health. Moreover, Mishel (1988) states that psychosocial adjustment, recovery, stress, life quality, and health are important in adaptation.

In this study, coping and adaptation is described by participants' own perceptions of their quality of life. These perceptions included their attitudes, feelings, and behaviours regarding physical health, mental health, drug use, social functioning, and morale.

Perceptions of Physical Health

One participant stated that her health was "good", and two other participants described their health as "fair". Below, the women explained how they arrived at their health rating:

> Fair... [because] I am rather handicapped with this arthritis... crippled up... one of the girls at the therapy said I was fragile. I said, me fragile? (PT1)

> [Good health] means to me that I am quite normal in everything... my body is doing what it ought to do, and I have not trouble with any of those things. I have a

> very regular life that way... but... I DO have osteoporosis for sure, yah. (PT2)

> Well relating to my age and all that... I can't expect my health to be what was 30, 40 years ago, you know. So it's got to be "fair"... [and I have] very, very nasty habits [such as, eating, sleeping, and smoking]. (PT4)

During the initial interview, PT3 stated that her health was good. However, in the second interview, she reported:

> Well, my health was good when I had my hip operated on. That's been ten years ago, honey ... Now I haven't felt good since... my nerves got [bad]... I don't hear, and I get tied up, you know what I mean? ...And I haven't felt that good you know after my eye operation and that I, it's taken quite a bit out of me that eye operation has... [and] I've got arthritis so bad in my arms and my shoulders... this here arm I couldn't even lift a cup of tea, it was so bad during the winter there. (PT3)

Lazarus and Folkman (1984) state that maladaptive coping could result in physiological harm to the body. Ultimately, susceptibility to poor health depends primarily on the effectiveness of coping. For instance, indirect harm to the body may occur when stressors depress the effectiveness of the immune system. Direct harm to the body from stress results when body tissue is damaged, as in the case of high blood pressure or ulcers.

Perceptions of Mental Health and Drug Use

In several studies, depression and elevated levels of anxiety were associated with uncertainty (e.g., Christman et al., 1988). In the present study, all participants admitted that they were experiencing chronic psychological stress. For instance, they complained of depression (AGF). Three women described their depression as occasional, and one women stated that she was frequently depressed. In addition, three participants also stated they had occasional bouts of anxiety. As an example:

> When I go out, I get all tensed up... or maybe before I go out... just before I go out, when I'm getting ready to go... I wonder what that is, I don't know. Very annoying anyway... I think [it's] probably [caused by]

> your fear of falling... (PT1)

> ... You know, if I think about me slipping... It causes me to think about it great anxiety. (PT2)

In addition, one woman smoked cigarettes to reduce stress. Two other women used medication to cope with their pain, depression, and anxiety, and another woman took medication for insomnia, anxiety, and depression. Although these drugs may be effective for coping, they may increase the risk of illness (Lazarus & Folkman, 1984) and for falls (Gray-Micelli et al., 1994).

In this study, the inability to cope with uncertainty impacted on participants' physical health, mental health and drug use. However, their coping was undermined by the underlying chronic illnesses and disabilities that they dealt with on a daily basis. It appeared that participants who were able to view uncertainty as an opportunity, perceived their health more positively. For instance, one woman who had to overcome severe consequences of her falls remained the most positive about her health. In contrast, another participant who had a great deal of mobility and independence complained the most about her health.

The reason for these differences in perceptions of health may be due to the fact that the former participant had the greatest potential for a negative outcome and her future was more uncertain. Thus, she maintained an illusion by denying that she was having health problems. The other woman, on the other hand, appeared to suffer from extreme anxiety. Her inability to adapt to her health problems created repeated problems in dealing with others, including her family.

Perceptions of Social Functioning

Social functioning can be determined by many factors, including dependence, autonomy, trust, and intimacy (Lazarus & Folkman, 1984). These factors are enduring characteristics of the person and the person's environment. In this study, social functioning, as a form of adaptation, was described by participants' ability to live alone with their FOF, and being able to get along with relevant others.

Lazarus and Folkman (1984) believe that an individual's appraisals must match or at least approximate the actual situation if they are to be effective in identifying interpersonal problems. In this study, three participants were able to accurately appraise their situation. For instance, even though participants lived alone, they knew that they were not totally independent:

> I like to be independent, to some degree. I can't be absolutely, totally [independent]... (PT1)
>
> And I don't want to be a burden, although I am! In many things. (PT2)
>
> ... [I'm] not totally [independent]... no, not totally. No. (PT4)

In addition, two participants were able to identify instances when they had caused excessive worry and physical demands on relevant others:

> Well, [my daughter] always phones me every morning... and she called... and then she said, "Mom, why don't you answer?" and then she phoned again and you could tell she was getting a little desperate. And then the third time she was hysterical. So she came over and she found me on the floor! (PT1)
>
> She came at about ten o'clock in the morning, she came, she found me [on the floor]. And... then she... went back to work, and came and stayed that night with me... [and then] I stayed with [my daughter] for five months [after my last fall]... (PT1)
>
> Last week I had my telephone not properly on the hook... and my closest friend, she said, I had you buried, you know, dead and buried... (PT2)
>
> I came home [from the hospital]... and my son stayed here with me that night. He said, you can not be the first night alone and not for a couple of days. (PT2)

As well, Folkman and Lazarus (1988) state that there needs to be a shared understanding between the individual and relevant others as to what needs to be done. Three women in this study described having good relationships with their adult children. However, for one woman in this study, a lack of understanding lead to disagreement about her personal situation:

> But... [my daughter-in-law is] the one that said, I think it's about time you went in the lodge... see if I was in the lodge, my son wouldn't have to do so much for me. He used to come and get my groceries... now whether she's jealous of me being thin, or whether she's jealous of me getting, [my son] does so much for me, or what, I don't know! But it hurts me because why does she want to shove me into a home, a nursing [home], a lodge, [even] if I don't have to go? (PT3)

These differences in opinion lead to hurt feelings:

> But now... she very seldom come up! And I don't know why! 'Cause I try to be good to her. I try to do everything I can for her. (PT3)

Ultimately, this threat resulted in withdrawal from her family, which forced her to become even more independent:

> Well, there's no one I can depend on... since she said this, I go down and get my groceries and I take a taxi home. (PT3)

Another participant perceived that her independence was threatened by others who wanted to help her make decisions:

> I said listen. I said, my dear friend, I have a mind of my own, and I have enough brains to arrange those things myself. Oh, she said, do I interfere? I said, yes you do. Oh, she said, I didn't mean to. I said, no you don't mean to, but just the same you did, and I want to be independent. I told my husband everything. I am going to put that in the bank or take that out of the bank, and all those things, and I am going to pay taxes. But I did it.... I was independent, because he could not make the decisions. (PT2)
>
> ... and other people, oh you should do this, you should have a wheel chair. I said I should not have a wheel chair, and I should not have to listen to those things. I said, please don't mention it again. (PT2)

Good social functioning depends on possessing good social and problem-solving skills (Lazarus & Folkman, 1984). These skills are necessary if misunderstandings and conflicts are to be managed or resolved, and if the tasks associated with role expectations are to be carried out satisfactorily.

Perceptions of Morale

The term "morale" is said to consist of: (1) how we feel about ourselves; (2) the condition of our lives; and (3) the extent to which we feel happiness or satisfaction (Lazarus & Folkman, 1984). Below, the women provided their perceptions on factors which affected their morale.

The consequences of falls can be psychologically devastating. All four women described how they had lost confidence in their abilities:

> I really haven't felt the same since... I have no... I don't feel... you know I'm not confident... (PT1)
>
> I don't even go [outside], I could have rides, but I don't even want to, to walk down and get in a normal car... I, I my son has a van. And that's very easy to get in. But even, he said, well, come over for a barbecue. I don't want to go! I don't, I'm scared that I've, that I'll fall again. (PT2)
>
> Now that I've got older... I don't go out much in the winter time. (PT3)
>
> ... I just have to watch out for myself, and try to get some confidence back into myself... (PT4)

In addition, one woman developed low self-esteem from her FOF:

> Huh! I know I hate myself for being afraid... I keep trying... telling and telling myself well, DON'T be afraid! You know, and then there's the other side there that, uh... I don't know how to explain it. I just don't. (PT4)

In one study on confidence and uncertainty, Peterson and Pitz (1988, p. 95) defined the concept uncertainty as, "a person's beliefs about the variability of possible outcomes (i.e., how broad a range of outcomes is believed to be possible, and how diffusely distributed are the beliefs over that range)." In contrast, they defined the term confidence as, "a person's belief that a previously stated prediction is correct" (p. 85). Based on these definitions, one might expect that participants would lose their confidence, as they could not accurately predict when an accidental fall would occur or what its outcome would be.

The number of times the women left their homes per week varied significantly. One participant went out once a week (PT4), and another participant left her home about two to three times per week (PT1). During the first visit, one other participant stated that she left her home about four to five times per week (PT2). However, during the second visit, she stated that since her husband had died and she had fallen and broken her other hip, she did not go out at all. In contrast, another participant claimed that she went out every day of the week (PT3).

Although participants provided many advantages to living alone, they also expressed several negative aspects, such as, no one was there to help them and they felt confined or closed in at times. In spite of the fact that some participants were able to get out of their apartment every day, they all described situations that appeared to put them at risk for isolation:

> You put your card out... so you know I'm alive... But apart from that you go all day and never see anybody... (PT1)

> I am quite uh, solitary. [My neighbour is] the only one who comes, and I get along fine with all my neighbours here... but you know, we don't visit with each other. I'm not a joiner, I'm sorry, I'm not a joiner at all. Never, all my life. (PT2)

> Nobody can talk to you when you can't hear. So they can't be bothered. So this is why I sit here... And I used to sew something. I can't even get myself down to sew an apron! (PT3)

> Right now, these past few months, [I go out] once a week... Over to the lodge to get my hair shampooed and that's it... I uh... I just got into a slump where I don't want to go... now even to go out to the lodge next door to get my hair done is a challenge. Toss a

> mental coin, you know... I just... slowed down... (PT4)

Three women also felt that because they lived alone, no one was there if they needed help:

> Well I think, well you fall and, you have to... if you can't get help, well there you are!... [There's no one there to help] unless you can call them... There's nobody on duty here. They're at the lodge there, over there they have... somebody on duty all the time. (PT1)

> ... you can not talk or even scream, [the neighbours] can't hear you. I can make as much loud music as I want, a whole band here, and nobody will hear. So nobody could help me, and at that time, I did not have my alarm... And I was figuring... I thought well, um... nobody can hear me... (PT2)

> Well there's no one I can depend on. I have nobody living with me. And there's no one here that I would ask to protect me. (PT3)

However, one participant felt very secure in the fact that if she screamed, her neighbour would hear her, even if it was late at night:

> I have the phone close by and... I have a neighbour [across the hall] whose checking on her sister [next door to me], just about every hour on the hour. All I have to do is scream. (PT4)

Three participants also stated that they felt lonely at times, and two participants also felt occasionally isolated. In addition, the three women who lived in small seniors' complexes described their apartments as confining:

> Sometimes I get fed up living in seniors' residence... I don't have the space I used to have.... I feel closed in... I don't like it [here] as well [as my condo]. (PT1)

> ... it's so crowded in here... I do [feel confined here] a little bit... So I do feel confined in my home... I've been forty-one years alone. And it gets pretty lonely, yes... It gets, it gets monotonous... (PT3)

> ... yah... occasionally [I feel confined here], you know. I get to the point where I want to push the walls out, you know. Knock the windows, and what have you... [this place is] a little bit small... Yah [I feel a little closed in]... and yet it's not all the time...

> you know. (PT4)

One woman who did not live in a seniors' complex, did not find her apartment confining:

> ... I don't feel confined here at all... and I don't hate my own company. (PT2)

The meaning of the word "happiness" is somewhat ambiguous, as it can be used to mean "contentment", which is a mild or unarousing emotion, or "joy", which is a more intense reaction to a more specific event (Lazarus, 1991, p. 265). In this study, participants interpreted their own meaning of happiness. Below, participants responded to the question of how happy they were at this time in their lives:

> Oh, no, it isn't the kind of life that I would choose, you know, the way I have to live, 'cause I was quite happy until I had that fall... But I'm very happy that I can still live alone. (PT1)

> ... it was terrible to break the other hip. You know, I've been an invalid since the 5th of April, 1995. And... it doesn't suit me very well... I feel crippled... [but] ... that I can live here, I am very grateful for that... [it's] very important for me to have my own environment... (PT2)

> What does happiness mean?... My friend that used to come, and I'd go to her place, I'd just look forward to that day... it's not nice to live alone... [but] I'd rather be this way than in a nursing home... (PT3)

> Fifty-fifty. One horse, one rabbit... [I'd like to have] good eyes... There's nothing more I can do anymore... that's not fifty... there's some... days where... either you feel like you've got the world in your hands or the bull by the tail... and then there are other days where... you ain't got it... It's the way life turned out for me, that's the way I got to live! What the heck! If I cry by myself here, nobody knows. If the kids show up unexpectedly, I got a big smile on my face, you know... No! Why should I? You know. They've got their lives to live. They're busy, and you know, they've got children, got their jobs, and everything else, you know. And um... uh... see I raised them, not because I want to take advantage of them now, you know. I'm not one of these people that's gonna say, well hey, look what I did for you, you know. That's... you know... (PT4)

Their happiness in the way things were also reflected in their responses to questions about moving in with family, a lodge, or a nursing home:

> ... How would I feel about [putting me in a or nursing home]? Oh.. I think that's the end of the line... [I want to live alone] as long as I can. (PT1)
>
> Well, there is no pressure [to move] because I won't accept it... [and I] never [would I move in with my children]. They need their own lives... awful things do happen when they take their parents in... you might interfere, and I am deadly afraid of that... [The idea of moving into a lodge] frightens the daylights out of me... Ohhh... yes, that will be the end [having to move to a lodge]. It will be the end. Yah... for me it will be the end. I hope I can stay here until I move to heaven... (PT2)
>
> ... as far as living with my children, I wouldn't... [and] I don't want to go to any other [place]... I'd be scared to death to step outside the door [if I moved to a lodge]... [I'd be afraid of] what's going on in the world today... Purse-snatching, knocking you over the head, anything they can... well, I'll tell you what I DON'T want to go in to is a nursing home. They've been after me to go over here in the lodge... But I just didn't feel like I was ready yet to go in... (PT3)
>
> .. I don't want to move in with any of [my children]... No... it wouldn't be fair to them, it wouldn't be fair to me! You know... I just would not hamper [them] with that... you know? ... I suppose if I HAD to, I'd go to the lodge, you know... [but] I'm not losing any sleep over it, you know. But uh... it's something occasionally you have to think about, and wonder if you would or wouldn't. And I can't say, you know. (PT4)

For participants in this study, remaining as independent as possible was their primary motivation for happiness. Below, participants described what the term independence meant to them:

> To be able to look after myself and do my own things! (PT1)
>
> That means to me that I do not want always advice from everybody... independence physically and mentally too... (PT2)

> ... to be independent and look after myself as much as I could... (PT3)
>
> No, it doesn't [mean that I get to do what I want to do]. [Independence means that] I like to pay my own way... and going for my groceries. I hate to bother my son. (PT3)
>
> Just being able to do every thing and anything for myself without waiting for someone else to come along... (PT4)

Lazarus and Folkman (1984) believe that effective problem-focused coping is directly associated with positive morale. They state that even when circumstances do not result in a favourable outcome, doing everything a person possibly can will make them feel better.

Participants tried to maintain high morale by remaining as independent as possible, given their circumstances:

> You know, there are not facilities for cooking [in the seniors' lodge]... I don't want that if I don't have to... I don't want to be that [dependent]... (PT1)
>
> ... being dependent, and all my life I have been an independent person... I hope that I can maintain that until the day I die... I want to be independent... in the worst way. And that's my prayer too. (PT2)
>
> ... I'm 88... it's awfully hard to give up your independence... (PT3)
>
> I try to do as much as I can without asking for help... so here's me independent for so many years of my life and then all of a sudden the skids are taken out from under me, and I had to ask for help. Lose some of my independence... that was difficult... But the longer I can stay out of the lodge... the better... a little more independence... [I'm] trying desperately to hang on to what I have... (PT4)

Because of their strong desire to remain independent, the women found ways to do for themselves:

> I have lots of TV dinners... Oh yes, I can boil a potato... and microwaves are a wonderful thing... They really are. I've often thought, people like in my circumstances, the same as I am... when there weren't microwaves... you couldn't be quite as independent. (PT1)

> ... I often use a plastic bag for [carrying] things I'm doing. Books and mail, and sometimes I have, I have this here [plastic container], and I can hold it like this... and I use the laundry basket for a sled [to carry my clothes to the laundry room]... (PT2)

> Oh, heavens, yes [I do things without asking for help]. That's my independence"... [I try to remain independent] too much so. I'm awful that way. I've been told that all my life!... [but] my kids, I know why they want me to go in a lodge. Then they know I get my meals and everything else. But I am able to cook frozen dinners. 'Cause I feel that if and when I get to the stage that I can't cook, I can get Meals-on-Wheels, or I can get frozen dinners, and I can manage... (PT3)

> ... and so far I can manage here. I can scramble some eggs, I can do this, I can do that for myself, you know. So that I'm not starving, you know. (PT4)

For two women, being financially stable was also an important aspect of their independence:

> ... well, so far I don't have to worry... because I am in the so-called group they judge to so-called rich. (PT2)

> ... thank the Lord I have enough to live on... I'm not rich by any means, but I'm very careful what I buy. It does me for a long while... I like to pay my own way. (PT3)

In addition, all participants stated that they tried to do things without asking for help, and even tried to remain independent when they were ill. However, there were times when they could not get by without assistance, as one woman described below:

> I said, now if that fire alarm goes off, please come and pound on my door. I'll hear that better than the fire alarm. So she said she would, so I'm trusting in her that she will do that for me. 'Cause I told her, I said sometimes, I can't hear it... it does worry me, but I can't do much about it. (PT3)

Several of the women also described how difficult it was to ask for help. One woman resisted using her Life Call, even though she was paying for their services:

> But anyway, I thought, I'm not going to put, I kept saying to myself, I'm not going to push that button.

> Finally I had to give in... I'm a very stubborn woman, that's all. (PT1)
>
> I think you do rely to a certain extent on your friends and your family... But as little as possible... [and] sometimes when I go into the car or out of the car, then they want to help me. I say no, no, no please let me try it on my own... (PT2)
>
> I try to do as much as I can without asking for help. But there are some areas where I must have help, and I just have to swallow my pride and literally say, S.O.S. - Help! Send smoke signals up in the sky. That was difficult for me to do. When I was in the school for the blind... so here's me independent for so many years of my life and then all of a sudden the skids are taken out from under me, and I had to ask for help. Lose some of my independence... that was difficult... (PT4)

The participants' perceptions of quality of life included attitudes, feelings, and behaviours regarding physical health, mental health, drug use, social functioning, and morale. All the participants were using drugs to decrease their depression and anxiety, and had problems with their mental health, physical health, morale, and/or social functioning. Conclusively, none of the participants were coping effectively at the time of this study, and hence, and adaptation had not occurred.

Relating Rival Theories to the Research

In the past, researchers have used prominent theories to explain the phenomenon FOF. For instance, Tinetti et al. (1990) adapted Bandura's (1982) work on self-efficacy to explain the FOF. Using Bandura's behavioral theory, Tinetti et al. (1990) defined the FOF as "low self-confidence within a specific activity" (p. 36). However, low self-efficacy or low confidence has been criticized for its lack of validity in evaluating the FOF (Dayhoff et al., 1994).

In this study, low self-confidence appeared to be an important finding. However, it did not fully explain the variations in participants' responses. For example, having low self-confidence could not justify the women's use of direct action as a major coping strategy to prevent falls.

More recently, Dayhoff and colleagues (1994) attached the emotion FOF to Lazarus' (1991) "core relational theme of concrete and sudden danger of imminent physical harm" (p. 235). However, using fear as a measure of FOF has been discouraged by others (i.e., Tinetti and Powell, 1993), because the concept "fear" has psychiatric connotations which may also be a poor predictor of behaviour (Mishel, 1988).

The concept fear, as described by Lazarus (1991), was inconsistent with the findings of this and another study (Dayhoff et al., 1994). For example, Lazarus believes that the appraisal of future expectancy (the perceived probability that things are likely to change for the better or worse), which precedes the emotion fear, is unlikely to occur. He suggests that certainty, rather than uncertainty, of harm is a prominent feature of fear, and thus, estimates of future changes are irrelevant.

Notwithstanding, the phenomenon of uncertainty was the most significant finding in this study. Contrary to Lazarus' (1991) hypothesis, the women perceived their future with great uncertainty, and their uncertainty left room for them to fear that things were going to change for the worse. Moreover, the women also described other elements of uncertainty, including temporal uncertainty. Participants were unable to express with certainty that they were going to fall, as they did not know when, where, or even if they would fall, and what the consequences would be. Consequently, they had difficulty responding to the FFQ developed by Dayhoff et al. (1994). Examples of participants' comments during its application included:

> I hope not [to fall in the next month], but how do I know? (PT1)
>
> I don't know how to answer that... that's a silly question, isn't it? I'm hoping I DON'T fall and hurt

> myself. (PT3)
>
> Well, that... will depend on how much damage I do... how would you answer that? (PT4)
>
> You see, there again, it depends on the degree of injury, you know... It's hard to say because you don't know. (PT4)

Alternatively, I proposed earlier in this study that the women's perceptions of uncertainty had significant relevance to Mishel's (1988) middle range theory of Uncertainty in Illness. The three central themes of this theory were: (1) the antecedents of uncertainty; (2) the process in which uncertainty is appraised; and (3) coping with uncertainty. These themes were compatible with the three themes of the present study: (1) the physical, behavioral, and psychosocial factors affecting falls and FOF; (2) perceived uncertainty in the FOF; and (3) coping with the FOF.

This research also complements Mishel's (1988) theory of Uncertainty in Illness in two important ways. First, it provides support for the linkages created in the theory's conceptual relationships. A second, albeit related, way this study complements Mishel's theory is that by applying the theory to a different population in a specific setting, that is, older women who live alone with the FOF, the theory was used in a unique and innovative way. This study and conducting other similar studies may help in confirming its generalizeability in nursing practice.

Conclusively, these research findings advance knowledge in theory related to the FOF. In addition, these findings lay the groundwork for future research in the area of uncertainty and coping with the FOF.

Reflections on the Research

The findings in this study illuminated the unique perceptions of four older women who lived alone with the FOF. They described two separate variations of fear. These fears, which were previously reported in the literature by Rachman (1990), were labelled transient acute fear and chronic fear. Subsequently, these two types of fear were distinguished from phobic fear, or a sustained acute FOF.

Six elements of uncertainty were found to be major stressors for the older women who participated in this study. These women expressed uncertainty about the environment, their bodies, the cause of their falls and what triggered their FOF, when a fall would occur, the treatments available, and the future.

Theories by Bandura (1982) and Lazarus (1991) were unable to explain the variations in responses provided by the older women in this study. However, by applying Mishel's (1988) middle range theory of Uncertainty in Illness to the women's perceptions, new light was shed on the phenomenon FOF. As such, the research captured the complex circumstances involved in the phenomenon FOF and the closely-linked coping strategies used by the participants.

CHAPTER SIX: CONCLUSIONS

Fear of Falling: Fearing the Future

An implicit assumption of this study was that the context of living alone contained tacit, and perhaps hidden elements of the phenomenon fear of falling (FOF). Early in the analysis, the older women in this research revealed that the hidden element of FOF was uncertainty. Moreover, six elements of uncertainty existed for these women: body, environment, temporality, etiology, prognosis, and treatment.

As one might anticipate, the participants' perceptions of FOF were closely related to feelings of immediate fear of danger, harm, and embarrassment. Additionally, the women's feelings of uncertainty about their failing bodies, the unstable environment, and the unpredictable nature of falls enhanced their FOF. Moreover, the women expressed uncertainty about what the future held for them in relation to their FOF. As one woman stated:

> ... but the root [of my fear of falling] really is... I think... the root is the future... (PT2)

Not knowing what the future held for the women in this study enhanced their FOF, as it left room for them to fear the worst: poor prognosis, loss of independence, and institutionalization:

> ... the worst thing [that could happen from a fall] would be a nursing home ... you'd never want to be like that! ... even the ones that are mobile! ... when you go in to a nursing home, that's where you lose your... all you dignity and everything else. That's the end of the line... I hope I never have to do that, but who knows? Who knows? (PT1)

> [The idea of moving into a lodge] frightens the daylights out of me... Ohhh... yes, that will be the end [having to move to a lodge]... Yah... for me it will be the end. I hope I can stay here [living alone] until I move to heaven... (PT2)

> ... well, I'll tell you what I DON'T want to go in to is a nursing home... I hope and pray to God I never have to go in one... [My family have] been after me to go over here in the lodge... But I just didn't feel like I was ready yet to go in... (PT3)

The women's perceptions of living alone with the FOF reflected their strong desire to remain as independent as possible. Further, it appeared that independence was a key factor in living a life with quality. However, their great risk for falling and its potentially serious consequences threatened their independence and hence, their quality of life. As one woman reported:

> ... [I am so afraid of] being dependent, and all my life I have been an independent person... I hope that I can maintain that until the day I die... I want to be independent... in the worst way. And that's my prayer too. (PT2)

Further, the participants' perceptions of FOF and loss of independence were closely related to the fear of becoming a burden to others:

> If I fall, I think I won't be of any use to anybody, I will not be good to [my husband], I will just be a hinder to everybody... a burden to my children and to the healthcare [system]... then I'm so dependent on other people... [I am so afraid of] being dependent... (PT2)

> ... I don't know if I could have somebody to do... to have around me all the time... Because I would feel... maybe in the way. It should be time for me to go on... And... I hate to bother my son... I just don't want to ask [my son]... I just don't ask him, unless I absolutely have to... (PT3)

> ... I don't want to be a burden to [my family], you know... I don't want to move in with any of them... it wouldn't be fair to them... (PT4)

> Oh yah... I hate to be a burden to anybody. My, daughter said I don't know... why you should feel that way... Whether she just said that to make me feel better, I don't know. (PT1)

The participants admitted, however, that even though they lived alone, they were not completely independent at the time of this study:

> I like to be independent, to some degree. I can't be absolutely, totally [independent]... (PT1)

> And I don't want to be a burden, although I am! In many things. (PT2)

> ... [I'm] not totally [independent]... no, not totally. No. (PT4).

To maintain their present level of independence and avoid institutionalization, the participants relied on physical and psychological support from their families, friends, and healthcare services. Therefore, social support played an important role in reducing their risk for falling, decreasing their uncertainty and FOF, and maintaining their independence. As such, a paradox existed for the women in this study: the foundation for maintaining independence while living alone was dependence on formal and informal support systems.

As previously described in the literature review, an explicit assumption of this study was that older women who live alone with the FOF could be living in conditions of risk that threaten their health, quality of life, and ability to remain independent. Conclusively, the older women in this study could be described as "at risk", due to their vulnerability and need for physical and psychological support to remain living alone. Magaziner and Cadigan (1989) also found that elderly women who live alone have psychological vulnerabilities, as they lack "built-in" support systems. Because these women do not have the benefit of a partner or live-in companion, they are less likely to perceive that someone would care for them should they become ill for an extended period of time. As an example, one participant in this study who had family and friends nearby but was unable to rely on them for support, questioned her future:

> Well, if I fall, I might hurt myself and I can't look after myself. Who's going to look after me? ... I'm worried about what I'm gonna break [if I fall again] or what I'm gonna do! ... well, there's no one I can depend on. I have nobody living with me. And there's no one here that I would ask to protect me. (PT3)

Ultimately, dependency on family, friends, and healthcare services among older women who live alone with the FOF has serious implications for nursing practice, especially when informal support systems are unavailable or unable to provide assistance.

Implications for Nursing Practice

Nursing interventions for the FOF are sparsely sprinkled throughout the literature. Intervention strategies from Dayhoff and her colleagues' (1994) work on appraisals of potential harm are particularly relevant to this study.

Intervention Strategies for Appraisals of Potential Harm

Dayhoff et al. (1994) suggest that when self-appraisals of danger are realistic, the nurse ought to help the individual implement self-protective behaviours to prevent falling. If self-appraisals are unrealistic, the nurse ought to help the individual reappraise the potential harm to limit the individual's excessive self-restriction and decrease his or her FOF.

In the present study, one woman initially had an unrealistic FOF. Her appraisal of uncertainty was intense and her fear of imminent danger was unrealistic. She became fearful of falling even while sitting in a chair and she also experienced nightmares about falling. Hence, she could have benefitted from nursing interventions that focussed on reappraising the potential for harm. The other three women had a realistic FOF at the time of this study. Their appraisal of uncertainty and their fear of imminent danger were realistic. Therefore, they could have benefitted from nursing interventions that encouraged the use of self-protective behaviours, such as modifying their environment to make it a safer place, using caution, and seeking social and healthcare support.

Intervention Strategies for Low Self-Efficacy

Most participants in this study were not convinced that falls could be prevented or that their FOF could be resolved. However, Speechley and Tinetti (1991) state that falls and the FOF should not be considered an inevitable accompaniment of aging. They believe that falls and FOF are specific entities that may be amenable to interventions.

The participants in this study were at risk for falling in their homes and outside. In addition, they were at increased risk for falling due to physical, mental and behavioral factors. Medical researchers, Tinetti and Powell (1993), suggest that the first component of intervention for the FOF should target those physical factors that constitute the relevant skills for safe transfers and ambulation. They also imply that the major targets of many fall prevention programs (i.e., upper and lower extremity strength and range of motion, postural hypotension, vision, hearing, and medication effect, particularly sedatives) may also decrease the FOF.

Another important factor in decreasing the FOF is reducing the environmental risks for falling (Tinetti & Powell, 1993). Attention to environmental factors such as non-slippery surfaces, good lighting, safe furniture, and appropriate footwear are essential for increasing perceptions of self-efficacy. In addition, they believe that individuals with the FOF can benefit from the use of appropriate walking aids. Comparably, the women in this study underscored the importance of walking aids in reducing their FOF and increasing their ability to mobilize in their homes and outside.

Tinetti and Powell (1993, p. 37) further suggest that building confidence and decreasing dependence through "social persuasion" may positively influence self-efficacy.

Similarly, the older women in this study not only acknowledged physical assistance, they also appreciated the psychological support that family and friends offered.

Lastly, these researchers suggest working with individuals on multiple small goals that will ultimately result in progressively greater gains, as done in rehabilitation (Tinetti & Powell, 1993). These steps work well in achieving success, especially if they are jointly enforced by the nurse, patient, family member or significant others, physician, and social worker. Further exploration into the importance of goal-setting and the phenomenon FOF may provide valuable information about increasing the individual's perception of self-efficacy in the FOF.

Intervention Strategies for Uncertainty

Implications for nursing from the analysis of findings must be done with caution, as elderly individuals who live alone with the FOF present different sets of circumstances and possess unique bio-psycho-socio-cultural perspectives that must be considered. The strategies described above are helpful when concerns of body uncertainty and environmental uncertainty are encountered. However, these interventions inadequately deal with many other concerns described by the women in this study. Several implications for nurses emerge.

The participants in this study were asked directly for suggestions on what nurses could do to help people deal with FOF:

> I don't know. I don't know what the answer... it would be nice if you could have a nurse with you all the time, wouldn't it? (PT1)

> Well, if [the nurses] tell you, you are doing much better than yesterday! Yah, that sort of thing... and you look good! Oh, you look better than last week! That sort of thing helps. That helps... Moral support I call it. (PT2)

> There might be [something nurses can do], by talking... I think [talking helps]... Talking about it and try, try and get us out of that situation, you know that,

> how would you call it?... But I think that by talking... should do it... if we had support groups and got into sessions and we yapped and talked about it and then we could get to the point where we were just about joking and laughing about it and probably get it out of the system that way... (PT4)

Two participants did not know how nurses could intervene to help them with the FOF. However, two participants suggested that it would be beneficial to talk about their fear and for nurses to provide encouragement. In addition, three participants stated that talking to a healthcare professional helped them:

> Yah [talking about the fear of falling and how others feel is good]... you realize that there are other people like yourself. That your problems aren't, you know, that have never been heard of before. (PT1)

> But at the same time, you help me, because I confront now why [I have a FOF]. You know. Yah, that helps. Because I have to confront my fears now... Because you know, it makes sense for me too... (PT2)

> ... 'cause I think of another situation [when I was traumatized by a rude physician and having nightmares about him] ... I sat here and I thought about [it] and I thought, I'm going to talk to [my general practitioner] about [what happened to me]... And do you know what? He was shocked, he was hurt, he was angry. But do you know what? My nightmares stopped... because I talked about it. (PT4)

Loveys (1990) suggests that nurses, rather than the individual may identify a need for intervention. Several interventions using a holistic approach are recommended, based on an analysis of the findings.

An important finding in this study was that the older women were very reluctant to discuss their FOF with healthcare professionals or even their families. Moreover, they were not even aware that a professional nurse could help them with their uncertainty and fear. Consequently, community health and homecare nurses need to make the initial contact with older women who live alone. This proactive action has at least four benefits. First, the contact could provide opportunities for nurses to promote understanding and trusting relationships with elderly community-dwelling women (Cartwright, 1982). Second, the contact could provide an opening for nurses to help older women express their uncertainty and talk about their FOF. Third, the contact could enable nurses to intervene by adjusting medications, determining risky behaviours and lifestyles, and assessing the home for hazards that increase their risk for falls. The Assessment Guide for Falls (AGF) used in this study (see Appendix G) could be very useful in identifying risks in the home and surrounding area. Fourth, the contact could enable nurses to recommend supportive, educative, and rehabilitative interventions such as, physical care, therapy programs, counselling, and/or community services.

A second nursing action is to establish a falls clinic that takes a holistic therapeutic approach. Upon self-referral or referral by healthcare professionals, a gerontologic nurse could complete an initial physical assessment to determine the need for medical and/or physical therapy interventions. Next, the individual's perceptions of falls and FOF could be assessed. Although several tools for measuring FOF exist in the literature, I strongly believe that a new tool should be developed based on the theory of uncertainty in the FOF. Once the assessments have been completed and concerns have been heard, appropriate actions to reduce falls, uncertainty, and fear could be implemented.

Primary and secondary prevention programs that promoted educative, supportive, and rehabilitative interventions could be developed. These prevention strategies would assist the community-dwelling elderly who are at risk for falling, have fallen, and/or have the FOF.

Primary prevention. The vigorous elderly, who are at risk for falling but do not have a FOF, could enter a primary prevention program which focuses on prevention of falls and FOF. Individuals could be given information about falls and FOF and a guide similar to the AGF for performing a self-assessment of their homes. In addition, individuals could attend physiotherapy sessions, where they could learn how to maintain their balance, how to fall, how to get up or get help after a fall, and so forth. Benefits of a primary prevention program are that it could prevent future falls and reduce the intensity of FOF.

Secondary prevention. Elderly individuals who have developed the FOF are in need of not only educational, but also supportive and rehabilitative nursing interventions. For example, individuals experiencing intense uncertainty and an unrealistic FOF could receive supportive therapy (Lazarus, 1991). They would be given the opportunity to attend an informal support group to help them understand their FOF. Individuals could also attend physiotherapy sessions as described above. Moreover, they could attend personal counselling sessions that focus on using effective coping strategies, eliminating or alleviating constraints to coping, and incorporating personal agendas (Baldwin, 1993).

First, the nurse could enhance the individual's coping resources (Baldwin, 1993). To illustrate, one participant in this study stated that although her family provided some physical support, it was very limited. Further, she could not rely on her family for psychological support. From the participant's perspective, family relations were declining and discussions with them generated great distress. Therefore, nursing interventions should focus on assessing the ability of family members to assist the elderly person, helping them work together towards compatible goal-setting, and/or explore alternative resources that would help them cope effectively, thus, reducing their uncertainty and fear (Baldwin, 1993).

Second, the nurse could discuss the individual's constraints to coping (Baldwin, 1993). Constraints such as lack of confidence, chronic illness, and pain during mobilization, were identified by the participants in this study. Since constraints also enhance uncertainty, the nurse should work with the individual to either eliminate or alleviate them (Baldwin, 1993).

Third, the nurse could consult with the individual to decide which forms of coping strategies would be most beneficial (Baldwin, 1993). In this study, participants used several coping strategies that involved direct action. These included: relying on other people and things for support, being alert and using caution, modifying the home environment, and seeking social support. In addition, the participants used affective strategies to manage their uncertainty. For example, some participants gave themselves pep talks while others scolded themselves for being too fearful, not being cautious enough, or for falling. Other participants used wishful thinking, while some women confronted or talked about their FOF. By exploring present coping strategies and suggesting more effective methods of coping, uncertainty could be reduced.

The fourth intervention is that the nurse could consult with the individual regarding agendas and determine which forms of coping would complement those agendas (Baldwin, 1993). In this study, the participants' agendas were analogous: remain living alone as long as possible. The participants' fears of moving to a seniors' lodge or nursing home generated great uncertainty and fear of the future. Therefore, forms of coping that would complement the individual's agendas would be fostered. For example, nurses could support the older individual and their families in decision-making and future planning. Further, information regarding community services, seniors' lodges and nursing homes could be provided. In addition, nurses could arrange for outings or for volunteers to visit older women living alone who feel lonely, depressed, isolated, or who are afraid to leave their apartments without assistance. Once the decision to move to a seniors' lodge or nursing home is made, the nurse could assist them in coping with this stressful transition.

Individuals who do not respond to nursing and physician interventions at the clinic, could be referred for psychotherapy. Lazarus (1991) states that most measures commonly used to deal with emotional disorders are usually defeated by the individual's internal struggles that undermine the task of learning and gaining suitable coping skills. Thus, the individual must be helped to overcome her internal struggles before she can assimilate suitable coping skills into her life.

Elderly individuals who are at risk for falling and are suffering from dementia but do not have a FOF are in need of constant monitoring. Although they may benefit from a rehabilitative program, it is the caregivers who would benefit the most from supportive healthcare services, such as the respite offered by seniors' day care.

In sum, elderly people, especially older women living alone, can benefit in many ways from nursing interventions. Through primary and secondary prevention strategies, nurses can help them reduce their uncertainty and FOF.

Recommendations for Nursing Education and Research

Nursing as a profession needs to develop a meaningful knowledge and theory base from which its practice can evolve (Robertson & Boyle, 1984). Further, it is generally agreed that increasing knowledge about clients' beliefs, values, and behaviours related to health, illness, and lifestyle can enhance nursing judgements and decision making (Leininger, 1978).

Many nurses may not envision the potential impact that FOF may have on an older woman's lifestyle, and may overlook FOF as a potential problem in promoting health and wellness. It is only through increased research that nurses and other healthcare providers will become aware of the effects FOF may have among older women. Therefore, the value of this research rests, in part, on the contribution this study makes to the nursing profession, and towards a better understanding of the complex nature of these health and illness behaviours within the context of older women's healthcare needs.

Physicians, psychiatrists, behaviorists, social scientists, physiotherapists, and occupational therapists, have all expressed interest in the FOF. Yet the phenomenon has remained an obscure concept that lacked clarity and precision (Tinetti et al., 1990). Notwithstanding, the identification of the phenomenon uncertainty as a major source of psychological stress for the women in this study, and the application of a nursing theory to the research findings have advanced knowledge in theory related to the FOF and complemented Mishel's (1988) theory of Uncertainty in Illness. In addition, this study has provided great potential for advancing nursing research and enhancing nursing practice in the community.

Recommendations for further research that are within the domain of nursing include: (1) the measurement of uncertainty in the FOF; (2) the relationship between the phenomenon FOF and Mishel's (1988) theory of Uncertainty in Illness; and (3) the development of the paradigm, "The Four Domains of Fear of Falling", which was delineated in Figure 1, Chapter Two. The emergence of the concept uncertainty in this study and the application of the nursing theory, Uncertainty in Illness, to the research findings, strengthens the view that further research should be conducted to explore the role of uncertainty as a significant variable influencing older people's perceptions of the FOF. Based on this proposition, a scale could be developed that taps into the six elements of uncertainty found in the FOF. These elements include: body, environment, treatment, prognosis, etiology, and temporality. Whereas the Fear of Falling Questionnaire by Dayhoff et al. (1994) cannot predict future FOF, it is possible that a scale that measures uncertainty in the FOF may be able to predict and delineate differences between sustained acute fear (phobic) and chronic fear in the FOF. Thus, this scale may not only be able to predict future FOF, but may also help in determining when the FOF is realistic or unrealistic.

In the literature, it appears that the phenomenon FOF has not been studied as a process. More often, the events leading to a fall and the FOF have been viewed as single stimuli, such as, perceptions of fear, appraisals of potential harm, and low self-efficacy. The present research findings indicate that the FOF involves six elements of uncertainty that are closely linked to a complex set of coping strategies. Mishel's theory (1988) of Uncertainty in Illness was used to describe and explain this process of uncertainty in the FOF. However, the proposed association between the theory's conceptual relationships and the phenomenon FOF requires validation through further investigation. For instance, further research is required to determine which elements of uncertainty in the FOF are perceived as a threat to well-being, a harm or loss, or a challenge. In addition, more research activity is needed to clarify the association between uncertainty in the FOF and its connection with adaptive and maladaptive coping strategies.

As explained previously, the paradigm, "The Four Domains of Fear of Falling", was developed in an attempt to enhance clarity of the complex phenomenon FOF. However, further research is necessary to define the boundaries among the four domains. These boundaries could be delineated by testing important variables in different contexts. For example, sampling under different conditions in the community (e.g., the elderly living with family or significant others), sampling different age groups, or sampling the male population and/or a comparison of the two genders, could provide important data on the boundaries of the FOF paradigm. Additionally, research that includes the perceptions of significant others could potentially add important dimensions to the FOF paradigm.

Limitations of the Study

This study had four limitations. One limitation was that participants were required to speak English. This selection criterion undoubtedly made some older women ineligible for the study. This criterion was necessary, however, so that I could capture a full and accurate description of the experience of living alone with a FOF, as expressed by participants.

The second limitation was that older women who chose to participate in this study may have been different in some unknown ways from those who chose not to participate. Nonetheless, I was able to reach a wider range of potential participants through posting notices, advertising, and new releases.

The third limitation pertained to the replicability of the study. Marshall and Rossman (1989) state that no qualitative research is replicable, due to the complexity of the situational contexts and interrelations as they occur. However, by keeping thorough field notes and a field journal others will be able to inspect the procedures, protocols, and decisions I used. Furthermore, I kept the data in a well-organized, retrievable form, so that findings could be easily made available if they were challenged or if another researcher wanted to reanalyze the data.

The final limitation was that the sample lacked external validity, and was not representative of the entire population of older women, 75 years or older who have a FOF and live alone because of the small sample size (Brink, 1987); nor was it representative of other settings or populations. Nevertheless, Yin (1994, p. 31) states that case studies are not "sampling units", and should not be chosen for this reason. Rather, multiple cases are similar to multiple experiments, in that both should be generalized to theory instead of statistics.

Another legitimate, alternate form of generalization of qualitative research findings is case-to-case translation. Case-to-case translation passes the responsibility for application of the research findings from the researcher to the reader (Firestone, 1993). Thus, when readers recognize the study's findings as similar to their own perceptions and experiences, it provides an alternate form of generalization and legitimizes the proposed study.

Similarly, Morse and Field (1995) state that qualitative research findings are generalizable, but in a different way. They state that with qualitative methods, it is the theory that is generalizable to other settings, and not the strength or significance of the relationships between variables. Therefore, it is the reader's and researcher's task to determine if the research findings have relevance and fit, and provide an explanation for a similar problem in another setting.

Final Reflections

Mishel (1990) states that uncertainty is an inherent part of reality, and life is not assumed to be precise and determinable. When individuals are treated by healthcare providers who do not acknowledge the natural existence of uncertainty, then the individual maintains the view that uncertainty is an anomaly that must be eliminated. However, when nurses view instability and fluctuation as natural, they have the potential to increase the individuals' range of possibilities. Thus, when nurses encourage individuals to consider alternatives and choices as potential solutions, they are teaching them to view uncertainty as a natural phenomenon.

One of the initial objectives of this study was to advance knowledge of the phenomenon FOF. It was demonstrated how this study advanced knowledge and complimented the theory of Uncertainty in Illness (Mishel, 1988). Hence, I believe that this objective was met.

The second objective was to enhance nurses' awareness of the FOF. It is hoped that the previous discussions will assist nurses in not only identifying those members of the community who have the FOF and who are at risk for developing the FOF, but also becoming aware of their patients' need for physical, psychological, and educative nursing interventions.

Listening to older women's stories of living alone with the FOF has offered me an opportunity to learn first hand about how older women cope with the FOF. At a time when Canada and other countries are expecting a significant increase in the elderly population, it is very appropriate for nurses to pursue research among the community-dwelling elderly.

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Appendix A: Advertisements

Example of Bulletin Board Notice For Seniors' Complexes, Seniors' Centres

LADIES

YOU ARE NOT ALONE

IF YOU ARE CONCERNED ABOUT, OR

AFRAID OF FALLING IN

YOUR HOME AND WHEN YOU GO OUT

A REGISTERED NURSE
WOULD LIKE TO TALK TO YOU ABOUT YOUR EXPERIENCES

I AM DOING A NURSING RESEARCH STUDY ON WOMEN WHO HAVE A CONCERN ABOUT FALLING IN THEIR HOME AND WHEN THEY GO OUT. I AM INTERESTED IN HEARING YOUR STORIES. THEY ARE IMPORTANT TO ME AND MAY HELP OTHERS IN THE FUTURE. ALL PARTICIPANTS NAMES ARE KEPT CONFIDENTIAL.

I have received approval from the Research Ethic Board to do this study. I have also received approval from your Resident Manager and your Seniors' Committee Council.

IF YOU LIVE ALONE, AND WOULD LIKE TO TALK TO ME ABOUT YOUR

EXPERIENCES OF BEING AFRAID OF FALLING,

PLEASE CALL DIANE DESJARDINS AT:

492 - 2648
(in the EVENINGS - AFTER 6 PM)

(Please be prepared to leave your name and phone number on an answering machine that will record your message)

492-2648
492-2648
492-2648
492-2648
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492-2648
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492-2648

Newspaper Advertisement

Newspaper Column: Seniors

ARE YOU CONCERNED ABOUT FALLING IN YOUR HOME AND OUTSIDE? If you are a woman, minimum age 75 years, living alone, and would like to share your experiences in a nursing study, call 492-2648 evenings after 6.

Sample of News Releases in Seniors' Newspaper and Newsletter

Fear of Falling

Many older people enjoy long, happy lives and live life to the fullest. But they are afraid of one thing... falling. Fear of falling commonly occurs after an accidental fall, even though there may be no physical injury. An older person who has never fallen may also develop a fear of falling. "Learning of a friend's fall and its traumatic consequences can be devastating," explains Diane Desjardins. Diane Desjardins is doing a research study on fear of falling in Graduate Studies at the University of Alberta, Faculty of Nursing.

Fear of falling can have many serious consequences. Loss of confidence and self-esteem may lead to dependence, isolation and immobility. Once a person falls, he or she may avoid activity because of a fear of falling again. As a result the individual becomes house bound or even bedridden, which can lead to institutionalization.

If you are interested in participating in this study by talking about living alone with the fear of falling and you are a woman who is 75 years or older and living alone, please call Diane at 492-2648 in the evening after 6 pm.

Appendix B: Introductory Letter

Project Title:
The perceptions of older women living alone who have a fear of falling

Investigator:
Diane L. Desjardins, RN, BScN
Graduate Student
Faculty of Nursing
University of Alberta
Project Phone Number: 492-2648 (evenings after 6 PM)

Co-Supervisors:

Dr. D. Lynn Skillen	Dr. Marjorie C. Anderson
Associate Professor	Assistant Professor
Faculty of Nursing	Faculty of Nursing
University of Alberta	University of Alberta
Office Phone: 492-2648	Office Phone: 492-4548

Dear Madame

I am a Registered Nurse, who has recently returned to school for further education. I would like to invite you to take part in a timely research study. The purpose of this study is to gain insight into what it is like to be an older woman living alone with a fear of falling. An outcome of this research is to help nurses become more aware of and sensitive to the needs of women who are living alone with the fear of falling.

You will be interviewed and the interview will take approximately one to one and a half hours. A second interview may be arranged if more information about your experiences is needed. The interview will take place in your home at a time that is convenient to you. The visit will be tape recorded and then typed word for word so that the information that you give the researcher can be reviewed later.

On the first visit, the researcher will check to see if there are any hazards in your home. These hazards may increase your risk for falling. The researcher will discuss this with you at the end of the first visit. This will take about one hour. In total, the first visit will take about two to two and a half hours of your time.

You may also be invited to take part in a group session with about five other older women at a later date. The meeting will take about two hours. A second session may be arranged if more information about your experiences is needed. The meeting will take place in a health care centre at a time that is convenient to you and the other members. The session will be tape recorded and then typed word for word so that the information obtained from the session can be reviewed later by the researcher.

There is little risk to you by taking part in this study. You may drop out of the study at any time. You do not have to answer any questions or discuss any subject in the interview if you do not want to. Taking part in this study or dropping out of this study will not have any effect on any future health care you receive.

Your name will not appear in this study. The tapes and transcribed interviews will be shared with the researcher's thesis committee and the person who transcribes the tapes. No one else will see the tapes. All information will be kept confidential.

Sometimes talking about past experiences can be upsetting. If you become upset during the interview and would like to talk to an expert, a phone number will be provided.

Permission has been obtained from the Research Ethics Board to do this study. If you are living in a seniors complex, the Resident Manager is also aware of this study.

If you would like to take part in this study or would like more information about the study, please call me at 492-2648 (in the evening, after 6 PM) or my co-supervisors (phone numbers listed on page one). I am available to answer any questions that you may have about this research study. Thank you very much for considering taking part in this study.

Yours sincerely

Diane L. Desjardins, RN, BScN
Graduate Student
Faculty of Nursing
Clinical Sciences Building
University of Alberta
Edmonton, Alberta T6G 2G3
Project Phone Number: 492-2648 (evenings after 6 PM)

Appendix C: Telephone Interview Form

Name: ____________________

Address: ____________________

Phone Number: ____________________

How did you hear about the study: ____________________

Have you had an opportunity to read the Introductory Letter? _____

If not, send an Introductory Letter: ______ (done- X)

(1) Are you afraid of falling? _____ In your home? _________

(2) On a scale of 1 to 10, with one being the least afraid and 10 being the most afraid, how would you rate your fear of falling?

1	2	3	4	5	6	7	8	9	10
a little afraid									extremely afraid

(3) How well do you speak and understand English?__________

(4) Are you female? _______________

(5) What is your age? (minimum age of 75)____________

(6) How long have you been living alone?_________ (must be living alone for at least 2 years)

(7) Are you living alone now?_______________

(8) Are you at least partially mobile?_______________ (able to get around without a wheelchair)

(9) Are you willing to share your experiences?____________

(10) Do you have difficulty remembering past experiences?_____

(11) Do you have time to participate in the study?____________

(12) Will you agree to be interviewed in your own home?______

Appendix D: Correct Grammar Readability Analyses of Forms

Informed Consent Form

18 passive sentences	42	% of total	
0 sentences hard to read	100	% correct	
Flesch Reading Ease score	65.2		Fairly Easy
Grade level required	8		
U.S. adults who can understand	88	%	
Flesch-Kincaid grade level	8.3		
Gunning Fog Index	7.8		

Introductory Letter

7 passive sentences	25	% of total	
0 sentences hard to read	100	% correct	
Flesch Reading Ease score	66.7		Easy
Grade level required	7		
U.S. adults who can understand	89	%	
Flesch-Kincaid grade level	7.8		
Gunning Fog Index	7.7		

Assessment Guide for Falls

0 passive sentences	0	% of total	
0 sentences hard to read	100	% correct	
Flesch Reading Ease score	76.1		Fairly Easy
Grade level required	6		
U.S. adults who can understand	91	%	
Flesch-Kincaid grade level	4.2		
Gunning Fog Index	4.0		

Interview Guide

7 passive sentences	3	% of total	
0 sentences hard to read	96	% correct	
Flesch Reading Ease score	78.7		Easy
Grade level required	6		
U.S. adults who can understand	91	%	
Flesch-Kincaid grade level	5.2		
Gunning Fog Index	5.9		

Demographic Data Form

7 passive sentences	0	% of total	
0 sentences hard to read	100	% correct	
Flesch Reading Ease score	72.2		Easy
Grade level required	6		
U.S. adults who can understand	91	%	
Flesch-Kincaid grade level	4.8		
Gunning Fog Index	3.4		

Appendix E: Interview Guide

The guiding questions will be used to assist in systematic data collection. All of the questions may not necessarily be asked in the order listed below. The probes are designed to elicit further information and to help older women who have difficulty expressing their feelings or concerns openly.

QUESTIONS REGARDING FEAR OF FALLING

1. **Please describe to me what fear of falling means to you.**

Probe:
- in your own words, please define the term fear of falling
- what does the term fear of falling mean?

2. **Please describe to me the turning point, in which you first realized that you had a fear of falling.**

Probe:
- what triggered your fear of falling?
- what happened to make you afraid of falling?
- how did this fear of falling come about?
- how long have you had a fear of falling?

3. **Please describe to me how you feel when you have a fear of falling?**

Probe:
- think back to a time when you had a fear of falling and try to relive it.

4. **Please describe to me how your fear of falling affects your independence.**

Probe:
- how important is independence and self-sufficiency in your life?
- how does fear of falling affect your ability to make choices?

5. **Please describe to me what it is like to live with the fear of falling on a daily basis.**

Probe:
- is the fear of falling constant or does it come and go?
- what are the things that bring it front and centre in your mind?

6. **What activities do you avoid doing because of your fear of falling?**

Probes:
- do you miss doing any of these things?
- are you able to enjoy your life in spite of this fear?

- what activities do you miss the most?
- how satisfied are you with the way things are?
- how have your relationships with others changed, if at all?
- in what ways does your fear of falling prevent you from going on with your life?
- what activities do you enjoy doing, even though you have a fear of falling?

7. **In what ways have you tried to resolve your fear of falling?**

Probe: - e.g., taken exercise classes to increase balance

8. **What have you done to continue activity and get around the fear at the same time?**

Probe: - e.g., only go out in the day time; when they are accompanied by another person

9. **What changes have you made to your home to decrease your fear of falling?**

Probes:
- stopped going down to the basement
- closed off portions of the house
- added wall mounts for support in bathroom/stairs

10. **Do you know any other women in situations similar to yours who have fallen or have a fear of falling?**

If so, will you think back to a discussion you had with them about fear of falling and describe the discussion to me.

If not, what would other women think about living alone with the fear of falling?

Probe: - would other women feel exactly the same way you do or differently? In what ways?

QUESTIONS REGARDING FALLS

11. **Have you ever experienced a fall or a near-fall in or around your home? If so, please think back to that time and try to recall the details of what happened.**

Probes:
- during the night
- describe your health at the time
- were you under stress or going through an emotional period
- was your mind preoccupied
- lonely

- the environment (please show me where you fell and describe how it happened)
- how did you get up from the fall?
- what did you do after the fall?

12. **If you fell who would you contact?**

13. **What future plans do you have for dealing with a fall you might have in your home?**

Probes:
- would recovery from an injury due to a fall be difficult for you?
- do you have the help needed to recover from an injury due to a fall? Who?
- would you rely on (informal) friends, family, and/or (formal) home care personnel?

QUESTION REGARDING LIVING ALONE

14. (a) **Since this fear of falling has come into your life, please describe to me what your home means to you.**

Probe
- e.g., is it a place of confinement, solitude, or do you feel removed from the community
- e.g., is it a place of protection, security, or safety?

(b) **How difficult is it for you to maintain the kind of environment that you find comfortable?**

15. **What kind of pressures have you experienced from anyone to change your residence because they are afraid you may fall?**

CONCLUDING QUESTIONS

16. **Is there anything you would like to ask me?**

17. **Is there anything else I should have asked you?**

Appendix F: Demographic Data Form

Code Number: ____________________ **Date:** ________________

Place of residence:
1. home
2. apartment
3. other (specify) _____________________________

Age: ______________

What is your marital status?
1. never married
2. separated
3. divorced
4. widowed
5. other (partnered, but living alone)

How many children do you have? ____ **Males**____ **Females**____

Do they live nearby?
Is your family able to assist you with your needs?

How long have you lived at this residence?___________________

How long have you been living alone?________________________

What languages do you speak, other than English?____________

Are you able to read and write in English?____________________

How many years of education have you completed?______________

What services do you use in the community at the present time?
(circle all services presently receiving)
1. meals on wheels
2. social day program
3. social services
4. physiotherapy
5. psychiatric/psychology/mental health
6. physician
7. home care
8. DATS
9. other (please specify) __________________________

What services listed above do you feel you need, but you are not receiving at the present time?
For what reasons?

How many times do you leave your home per week? _________
For what reasons?

Appendix G: Assessment Guide for Falls

Client's Code:__________________

PART I

Section 1: BIOLOGICAL AGE

1. Circle the number beside the correct category for your age:

Age:	64 or less	=0
	65 - 69	=1
	70 - 74	=2
	75 - 79	=3
	80 - 84	=4
	85 or greater	=5

Section 2: HISTORY OF FALLS

2. (a) Have you ever fallen?

no=0 yes=1

(b) If yes, how long ago was your last fall?__________

(c) If yes, how many times have you fallen?__________

(d) What do you think caused you to fall?

____

Section 3: HEALTH HISTORY

3. (a) Do you have on-going/long term health problems (chronic illness)?

no=0 yes=1

(b) If yes, what health problems do you have?

- arthritis	no=0	yes=1
- stroke	no=0	yes=1
- diabetes	no=0	yes=1
- brittle bones (osteoporosis)	no=0	yes=1
- others (please describe below)		

____

4. (a) Have you had surgery in the past year?

no=0 yes=1

(b) If yes, what type of surgery did you have?

____

5. (a) Do you have any pain or discomfort at this time of your life?

no=0 yes=1

(b) If yes, what is the cause of your pain or discomfort?

____

(c) If yes, is the pain or discomfort:

Occasional	Frequent	Daily	Continuous
1	2	3	4

(d) If yes, on a scale of 1 to 10, with 10 being the most severe, what is your usual level of pain or discomfort?

1 2 3 4 5 6 7 8 9 10

6. Do you have dizzy spells?

no=0 yes=1

7. Do you sleep well at night?

yes=0 no=1

8. Do you ever have to get up to go to the bathroom during the night?

no=0 yes=1

9. Do you ever have trouble making it to the bathroom on time?

no=0 yes=1

10. (a) Do you get daily exercise?

yes=0 no=1

(b) Describe what type of exercise you do and how often.

____

11. (a) Do you consider yourself to be overweight?

no=0 yes=1

(b) If yes, how many pounds overweight do you think you are?______

12. (a) Do you have problems with your vision?

no=0 yes=1

(b) If yes, do you have eyewear that will correct your vision problems?

yes=0 no=1

13. (a) Are you required to take any medications at the present time?

no=0 yes=1

(b) If so, which of the following medications are you taking at the present time? (Please check all medications you are taking)

- water pills	no=0	yes=1
- pills for stress/feeling anxious	no=0	yes=1
- sleeping pills	no=0	yes=1
- high blood pressure pills	no=0	yes=1
- pain killers, except plain Aspirin, Tylenol, etc.	no=0	yes=1
- pills for the blues/feeling down (depression)	no=0	yes=1
- pills for allergies	no=0	yes=1
- heart pills	no=0	yes=1
- pills or insulin injections for diabetes	no=0	yes=1
- pills for arthritis	no=0	yes=1
- blood thinners	no=0	yes=1
- pills for brittle bones (osteoporosis) (e.g. calcium supplements)	no=0	yes=1
- others	no=0	yes=1

(please list additional medications below)

____

(c) If so, how often do you forget to take your pills?

Never	Occasionally	Frequently	All The Time
0	1	2	3

14. (a) How much alcohol do you drink?____________________

(b) Have you ever had a drinking problem?

no=0 yes=1

(c) When was your last drink?

____

15. How would you describe your current health status?

Excellent	Good	Fair	Poor	Very Poor
0	1	2	3	4

Section 4: PHYSICAL MOBILITY

16. (a) Do you require assistance with getting around the house?

no=0 yes=1

(b) If so, what aids do you use?

Cane	Walker	Wheelchair	Person	Furniture
1	2	3	4	5

17. (a) Do you require assistance when you go outdoors?

no=0 yes=1

(b) If so, what aids do you use?

Cane	Walker	Wheelchair	Person	Furniture
1	2	3	4	5

18. (a) Do you have trouble keeping your balance when you get up?

no=0 yes=1

(b) If yes, what do you think causes this?

____

19. (a) Do you have trouble keeping your balance when you are walking around?

no=0 yes=1

(b) If yes, what do you think causes this?

____

20. (a) Can you move from one position to another without any assistance?

yes=0 no=1

(b) If no, what type of assistance do you require?

____

(c) Is this assistance available to you at present?

yes=0 no=1

21. Foot Care and Foot Problems

(a) Do your toenails often get too long/ need cutting?	no=0	yes=1
(b) Do you have thick calluses/corns that hurt when you walk?	no=0	yes=1
(c) Do you have sores on your feet?	no=0	yes=1
(d) Do you have a foot deformity (e.g., bunions, hammer toes)?	no=0	yes=1
(e) Do you lose the feeling in your your feet or lower legs?	no=0	yes=1

Section 5: MENTAL HEALTH AND BEHAVIOR

22. (a) If you have to get up during the night, do you use any of the following:

- hallway light	yes=0	no=1
- glasses	yes=0	no=1
- walking aid, if required (e.g. cane, walker, care-giver, etc.	yes=0	no=1

(b) If no, what are your reasons?__________

23. Do you live alone?

no=0 yes=1

24. If you fell and injured yourself, are you afraid that no one will be there to help you?

no=0 yes=1

25. Do you ever feel lonely?

no=0 yes=1

26, Do you ever feel isolated from your family or friends?

no=0 yes=1

27. Are you forgetful at times?

no=0 yes=1

28. Do you find that you sometimes misjudge your ability to do things?

no=0 yes=1

29. Potentially Unsafe Conditions

(a) Do you do things in a rush?	no=0	yes=1
(b) Do more than one thing at a time?	no=0	yes=1
(c) Do things without asking for help?	no=0	yes=1
(d) Do things when you are over-tired?	no=0	yes=1
(e) Do things without planning them in advance?	no=0	yes=1

30. Do you try to remain independent, even when you are ill?

no=0 yes=1

31. Have you experienced a recent loss? (e.g., family member, friend, pet)

no=0 yes=1

32. (a) Have you had bouts of feeling depressed within the last year?

no=0 yes=1

(b) If yes, is the depression:

Occasional	Frequent	Daily	Continuous
1	2	3	4

33. (a) Have you had bouts of feeling anxious within the last year?

no=0 yes=1

(b) If yes, is the anxiety:

Occasional	Frequent	Daily	Continuous
1	2	3	4

(c) If yes, on a scale of 1 to 10, with 10 being the severest, what is your usual level of anxiety?

1 2 3 4 5 6 7 8 9 10

Section 6: FOOTWEAR

34. (a) Are you wearing shoes or boots that have worn-out tread on the soles? no=0 yes=1

(b) Are your shoes often:

- loose	no=0	yes=1
- slippery	no=0	yes=1
- floppy	no=0	yes=1
- worn more on one side than the other	no=0	yes=1

Section 7: ENVIRONMENT - I. IN THE HOME

Please answer the following questions about the environment that are underlined below before I walk around and examine your home further.

35. Safety of the Floors

(a) Is there clutter in the hallways? no=0 yes=1

** (b) Do you use slippery as opposed to slip-resistant wax on your floors? no=0 yes=1

(c) Do the scatter rugs slip and slide around? no=0 yes=1

** (d) Do you sometimes have to leave spills or slippery things on the floors, rather than mopping them up right away? no=0 yes=1

(e) Do any of the rugs and carpets have curled edges, worn spots, or rips? no=0 yes=1

36. Safety of the Stairways

(a) Are the stairs dimly lit in places? no=0 yes=1

(b) Are any stairs without hand rails? no=0 yes=1

(c) Are any of the hand rails loose or insecure? no=0 yes=1

(d) Do any stairs in the home need repair? no=0 yes=1

37. Safety of the Lighting

(a) Does the lighting leave dim or shadowy areas in some parts of the home? no=0 yes=1

** (b) Is it hard to reach the lamp or light switch from your bed? no=0 yes=1

** (c) Is the path from your bed to the bathroom poorly lighted? no=0 yes=1

38. Safety of the Bathroom

(a) Are there obstacles between the bed and the bathroom? no=0 yes=1

(b) Is the bathtub, shower, or toilet without a grab rail? no=0 yes=1

(c) Is the tub or shower without any non-skid coating or non-slip mats or appliques? no=0 yes=1

(d) Are there slippery mats on the bathroom floor? no=0 yes=1

(e) Are there any door steps/stairs between the bed and bathroom? no=0 yes=1

39. Safety of the Furniture

(a) Are any furniture pieces designed poorly or inappropriately? no=0 yes=1

(b) Does the furniture obstruct main pathways? no=0 yes=1

(c) Do any chairs have wheels? no=0 yes=1

(d) Are arm rests and chair legs unsturdy? no=0 yes=1

40. Temperature of the Home

** (a) Is the temperature maintained at 72 degrees fahrenheit? yes=0 no=1
(22 degrees centigrade)

- II. OUTDOOR ENVIRONMENT

41. Safety of the Walks and Entrances

(a) Are the outdoor stairs in poor repair? no=0 yes=1

(b) Are the outdoor stair handrails unaccessible/lacking? no=0 yes=1

(c) Are the walkways uneven? no=0 yes=1

(d) Are any shrubs not trimmed well back from the walkways? no=0 yes=1

(e) Are there hazards, such as clutter, bad lights, uneven or slippery surface in the:
- garage no=0 yes=1
- parking area no=0 yes=1
- outdoor stairways no=0 yes=1
- sidewalks no=0 yes=1

(f) Do the entrances to the home have hazards such as clutter or bad light? no=0 yes=1

** (g) Are seasonal ice and snow removed improperly or not promptly? no=0 yes=1

42. Transportation Availability

** (a) Do you use DATS or have another form of reliable transportation besides the city transit system? yes=0 no=1

Additional Comments:

Appendix H: Letter of Permission

EBH
EDMONTON
BOARD OF
HEALTH

Suite 500, 10216 - 124 Street
Edmonton, Alberta T5N 4A3

Phone:(403) 482-1965
Fax: (403) 482-4194

August 22/95

Diane Desjardins
Edmonton, Alberta

Dear Ms Desjardins

I have already given you a copy of the "Steady As you go" client handbook which we will be using in our one year trial of this Falls Prevention Project.

I am happy to have you make use of our design outline + questionnaires in your research + acknowledge "us" as the source of these materials.

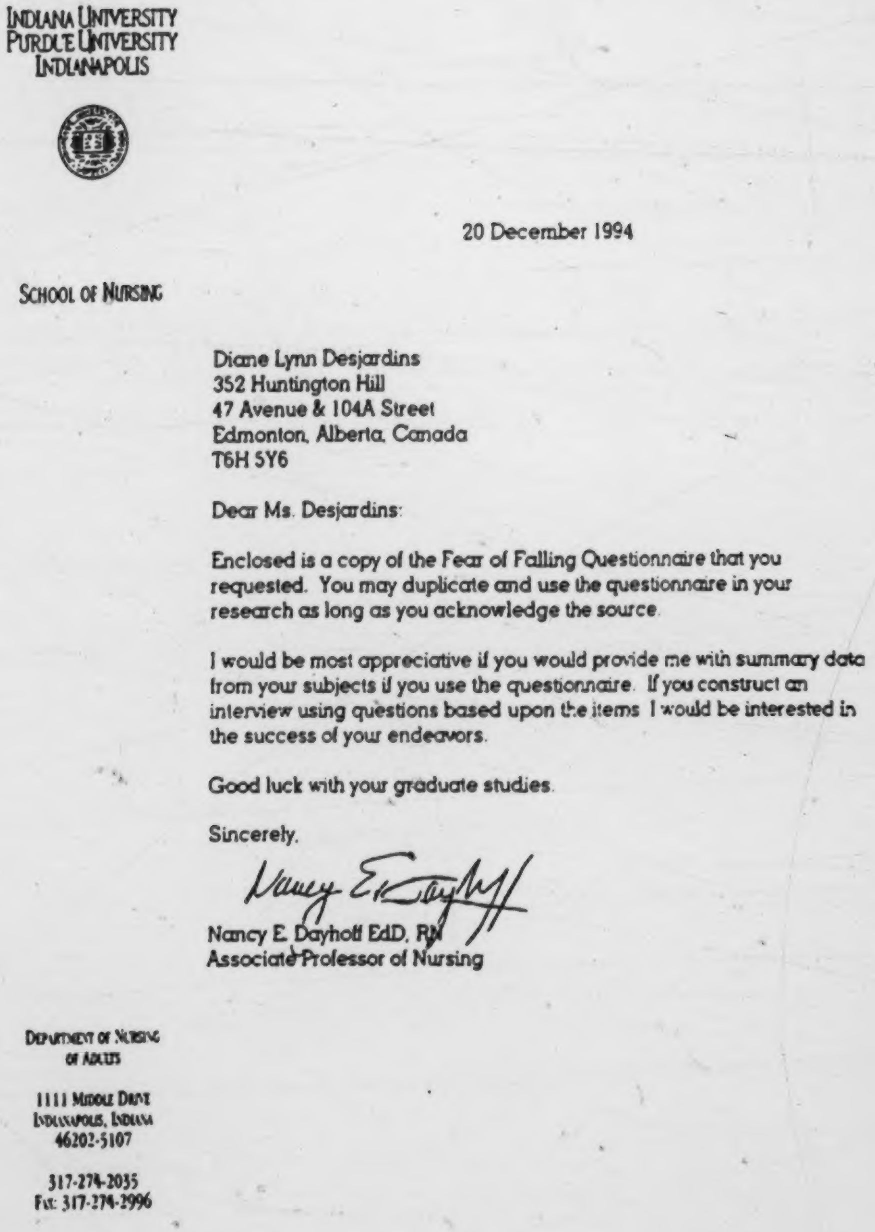
"us" is now Capital Health, Public Health Services
personal communication with myself.

Please keep in touch as your research may well be helpful to us

Sincerely
Ellie [illegible] MHEd
Health Strategy Researcher

■ Promoting, Protecting and Serving the Public's Health in Edmonton Since 1892

Appendix I: Letter of Permission and Questionnaire



INDIANA UNIVERSITY
PURDUE UNIVERSITY
INDIANAPOLIS

SCHOOL OF NURSING

20 December 1994

Diane Lynn Desjardins
352 Huntington Hill
47 Avenue & 104A Street
Edmonton, Alberta, Canada
T6H 5Y6

Dear Ms. Desjardins:

Enclosed is a copy of the Fear of Falling Questionnaire that you requested. You may duplicate and use the questionnaire in your research as long as you acknowledge the source.

I would be most appreciative if you would provide me with summary data from your subjects if you use the questionnaire. If you construct an interview using questions based upon the items I would be interested in the success of your endeavors.

Good luck with your graduate studies.

Sincerely,

Nancy E. Dayhoff

Nancy E. Dayhoff EdD, RN
Associate Professor of Nursing

DEPARTMENT OF NURSING
OF ADULTS

1111 MIDDLE DRIVE
INDIANAPOLIS, INDIANA
46202-5107

317-274-2035
FAX: 317-274-2996

ID# __ __ __ __

I.U. FALLING QUESTIONNAIRE

As people grow older. It is not unusual to be concerned about the possibility of falling. "Falling" means tripping, slipping, or stumbling in such a way that you would come to rest on the floor or the ground. Some people seldom think about a fall and others think about falling a lot.

Below are several statements pertaining to the possibility of falling. Please indicate the extent to which you agree or disagree with the statements. There are no right or wrong answers. Your **initial** reaction to each statement is important.

Circle the number that represents the extent to which you agree or disagree with each statement.	I Strongly Disagree	I Disagree	I Agree	I Strongly Agree
1. It is likely that I will fall in the next month.	1	2	3	4
2. If I fall, chances are I will be hurt in some way.	1	2	3	4
3. I cannot prevent a fall.	1	2	3	4
4. I am afraid of falling.	1	2	3	4
5. If I fall, I would have to stop doing activities, such as shopping, that I am doing now	1	2	3	4
6. If I fall, my life would change much.	1	2	3	4
7. The thought of falling really frightens me.	1	2	3	4
8. I will probably fall if I get dizzy or trip.	1	2	3	4
9. I can probably prevent myself from falling.	1	2	3	4
10. Recovery from any injury due to a fall would be difficult for me.	1	2	3	4

Circle the number that represents the extent to which you agree or disagree with each statement.	I Strongly Disagree	I Disagree	I Agree	I Strongly Agree
11. I do not have the help I need to recover from any injury due to a fall.	1	2	3	4
12. I could make some changes in my life to prevent a fall.	1	2	3	4
13. I frequently limit my activities to prevent a fall.	1	2	3	4
14. I stand to lose a lot from an injury due to a fall.	1	2	3	4
15. I seldom think about the possibility of falling.	1	2	3	4
16. One of my worst fears is that I will fall.	1	2	3	4
17. It is very likely that I could fall without being injured.	1	2	3	4
18. I know many people in situations similar to mine who have fallen.	1	2	3	4
19. My life would never be the same if I was injured in a fall.	1	2	3	4
20. The older people get, the more likely they are to fall.	1	2	3	4

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IED:js
Revised December 2, 1994
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Appendix J: Critique of Interviewing Skills

Critique of Interviewing Skills with a Pretest Client

Title of Study: The Perceptions of Older Women Who Live Alone with the Fear of Falling

Interviewer: Diane Lynn Desjardins

Date of Interview: January 8, 1996

Critiqued by: Dr. Joanne Olson
Professor
Faculty of Nursing
6-110C, Clinical Sciences Building

Date of Critique: January 29, 1996

COMMENTS:

Diane, your interviewing skills are excellent. I have just made a few comments.

line 4:
DD: And that's really good.

Try to avoid any judgemental comments (or evaluative comments), such as someone's feelings being either good or bad, when interviewing. Your purpose as an interviewer is just to ascertain what is.

line 12 and 13:
DD: ... describe to me what does fear of falling means to you?

Good leading statement.

line 37:
DD: ... It's the fear of breaking (something) and hurting yourself

Good reflections of the content portion of subjects's statement

line 63:
DD: ... it's really, it's upsetting!

You are kind of leading the subject here; better to ask her how she feels emotionally after falling.

line 125-127:
DD: So when you come, let's say, when you come to the stairs and lift yourself to go onto the bus, it's no problem, it's when you're coming down...

You nicely pursued exactly what the subject was trying to describe here.

line 135 and 206:
DD: Okay, great!
line 482:
DD: ... that's good.

Try to avoid such evaluative comments in your interviews.

line 236:
DD: Right... so nobody really pushed you into moving?

Good restatement of content of message above.

line 345:
DD: Would you consider it a place os security and safety?
line 347:
DD: You don't feel like it's confinement or solitude?

I wonder if these words aren't a bit leading. When you ask an open ended question, try to leave it that way. If you intend for several choices for answers, you might phrase the question differently, i.e., "would you define/describe your home more as a place of safety or of danger? of confinement or solitude?

line 349-351:
DD: Is it difficult for you to maintain your home in a comfortable way?
PT: You mean to do the housework?

A little hard to understand what you meant by this question. Subject was confused.

line 354:
DD: Oh is that right?

Try to avoid sounding surprised, shocked during interview.

Dr. Joanne K. Olson
Dr. Joanne Olson

Appendix K: Informed Consent Form

Project Title:
The perceptions of older women living alone who have a fear of falling

Investigator:
Diane L. Desjardins, RN, BScN
Graduate Student
Faculty of Nursing
University of Alberta
Program Phone Number: 492-2648 (evenings after 6 PM)

Co-Supervisors:

Dr. D. Lynn Skillen	Dr. Marjorie C. Anderson
Associate Professor	Assistant Professor
Faculty of Nursing	Faculty of Nursing
University of Alberta	University of Alberta
Office Phone: 492-2648	Office Phone: 492-4548

Purpose of the Study

The purpose of this study is to develop an understanding of fear of falling from the point of view of women who live alone. An outcome of this study is to assist nurses in becoming more aware and sensitive to older women's experiences of living alone with the fear of falling.

Procedure

You will be interviewed and the interviews will take approximately one to one and a half hours. A second interview may be arranged if the researcher needs more information about your experiences of living alone with the fear of falling. The interview will take place in your home at a time that is convenient to you.

On the first visit, the researcher will also check to see if there are any hazards in your home. These hazards may increase your risk for falling. She will discuss this with you at the end of the first visit. This will take about one hour. In total, the first visit will take about two to two and a half hours of your time. The visit will be tape recorded and then typed word for word so that the information that you give the researcher can be reviewed later.

Risks and Benefits

There is little risk to you by taking part in this study. The interviews will give you the chance to talk openly about your thoughts and feelings. You will also be made aware of things that could cause you to fall in your home. However, the real purpose of the research is to develop an understanding of fear of falling from the point of view of women who live alone.

Voluntary Participation

You do not have to be in this study, or any part of it, if you do not want to be. If you choose to be in the study, you may drop out at any time by telling the researcher or her advisor. You do not have to answer any questions or discuss any subject in the interview if you do not want to. Taking part in this study or dropping out of this study will not have any effect on any future health care you receive.

Confidentiality

Your name will not appear in this study. The tapes of the interviews belong to the researcher, and the researcher will erase your name and any other identifying material. The tapes, typed interviews, notes, and this form will be kept in a locked cabinet. The tapes will be destroyed in seven years after the study is completed. The typed interviews and notes will also be kept in a locked file for a minimum of seven years. They may be used for education and research purposes providing the researcher receives approval from the appropriate ethical review committees. The consent forms will be kept in a separate locked storage area for five years after the study is completed.

The tapes will be shared with the researcher's advisory committee and the person who transcribes the tapes. No one else will see the tapes. Parts of your interview may appear in the findings of the study, and may be published in journals. However, your name or any information that could link you to the statements will be omitted. If you decide to participate in the group meeting, other women in the group will know who you are.

If you have questions or concerns about this study at any time, you may call the researcher, Diane L. Desjardins, or her co-supervisor, Dr. D. Lynn Skillen.

Consent

I, ____, have read this information and agree to be in the study called, "Older Women's Perceptions of Living Alone With the Fear of Falling." I have had a chance to ask whatever questions I have about this study and my part in it and they have been answered to my satisfaction. I have crossed out any part of this form to which I do not agree. I have been given a copy of this form.

Signature of Participant	Date
Signature of Researcher	Date

If you wish to receive a summary of the study when it is finished, please complete the next section:

Name:

____

Address:

____

Appendix L: Support Systems Used by Participants

Activity	PT1	PT2	PT3	PT4
Houseclean	H/K	H/K	H/K	H/K
Laundry	Daughter, H/K	H/K	Indep.	Indep.
General access	Daughter: stairs, mail, elevator; does not use stairs	Family: stairs only; does not use stairs	Indep: Does not go up many stairs	Indep.
Keeping the house tidy	Indep.	Homecare; H/K	Indep.	Indep.
Taking a shower	Homecare	Homecare	Homecare	Indep.
Preparing meals	Indep.	Homecare, Family, Friends	Indep. (burns food)	Indep.
Taking medication	Indep. - forgets occas.	Indep. - forgets occas.	Indep. - forgets occas.	Indep. - never forgets
Grocery shop & transportation	Daughter	Family, Friends, Taxi	Indep.; City Transit System, Taxi	Family, DATS Taxi
Getting help immediately after fall	Daughter; cannot get up without help	Friends; cannot get up without help	Whistle; cannot get up without help	Family, Neighbour, Physician; can get up
Card system	yes	no	yes	yes
Life Call	yes	yes	yes	no
Recovering from a fall	Would live with daughter	Homecare & family; will not live with family	Homecare; cannot live with family	Family; would not live with family

Note. General Accessibility = walk up/down stairs, uses elevator, gets mail; Keeping House Tidy = makes bed, changes sheets, picks up after oneself, takes out garbage; Getting Help Immediately After Falling = can get back on feet or can get immediate care; H/K = housekeeper; Indep. = Independent; occas. = occasionally.